

- Bruce Parkinson's Team – University of Wyoming
- Tech Desal – Texas Tech University

Activities associated with Phase 2 are limited to information gathering, data analysis, dissemination, and laboratory operations such as computer modeling, nanofilter and membrane fabrication, and lithium extraction testing. Activities would occur within existing facilities/laboratories designed for the types of activities proposed using existing equipment; therefore, no modifications, new permits, additional licenses and/or authorizations would be necessary. No ground disturbing activities, no changes in the operation of existing facilities, and no installation of equipment outdoors would occur for Phase 2 activities. Semifinalists would be working with small volumes of geothermal brines that may contain corrosive salts and heavy metals. All such handling would occur in university laboratory settings with dedicated proper non-hazardous material handling and disposal practices to ensure the activities would pose no risk to the public. All non-hazardous materials would be managed in accordance with federal, state, and local environmental regulations. Based on a review of the Prize Official Rules and anticipated Phase 2 activities submitted by each semifinalist, DOE has determined that no adverse impacts to resources of concern are expected as a result of Phase 2 activities.

Finalists selected to advance to Phase 3 of the competition would be awarded a cash prize to build, test, and validate their planned innovation. Until such time as Phase 3 finalists and activities have been identified and defined, there is insufficient information available to complete a meaningful review of Prize activities subsequent to the conclusion of Phase 2. At the time finalists are selected and before the commencement of any Phase 3 activities, the Technology Office Prize Manager will be required to submit additional information for NEPA review. Phase 3 activities are restricted until further NEPA review is completed.

NEPA PROVISION

DOE has made a conditional NEPA determination.

The NEPA Determination applies to the following Topic Areas, Budget Periods, and/or tasks:

Phase 2

The NEPA Determination does not apply to the following Topic Area, Budget Periods, and/or tasks:

Phase 3

Notes:

Geothermal Technologies Office

At the time Phase 2 finalists are selected and before the commencement of any Phase 3 activities, the Technology Office Prize Manager must submit additional information for NEPA review. Phase 3 activities are restricted until further NEPA review is completed.

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposed action (or the part of the proposal defined in the Rationale above) fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal.

The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but

cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

A portion of the proposed action is categorically excluded from further NEPA review. The NEPA Provision identifies Topic Areas, Budget Periods, tasks, and/or subtasks that are subject to additional NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  **Electronically Signed By: Casey Strickland** _____ Date: 12/30/2021
NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

- Field Office Manager review not required
- Field Office Manager review required

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____ Date: _____
Field Office Manager