

**AMENDMENTS TO H.R. 2304**  
**OFFERED BY MR. MCNERNEY OF CALIFORNIA**

Page 3, line 7, through page 4, line 1, redesignate paragraphs (1) through (6) as paragraphs (2) through (7), respectively.

Page 3, after line 6, insert the following new paragraph:

- 1           (1) ENGINEERED.—When referring to enhanced  
2           geothermal systems, the term “engineered” means  
3           subjected to intervention, including intervention to  
4           address one or more of the following issues:
- 5                   (A) Lack of effective permeability or poros-  
6                   ity or open fracture connectivity within the res-  
7                   ervoir.
- 8                   (B) Insufficient contained geofluid in the  
9                   reservoir.
- 10                  (C) A low average geothermal gradient,  
11                  which necessitates deeper drilling.

Page 4, line 3, strike “considers the entire” and insert “attempts to optimize the performance of the overall”.

Page 5, line 4, insert “siting and” after “techniques of”.

Page 6, after line 7, insert the following new subsection:

1       (c) ENVIRONMENTAL IMPACTS.—The Secretary  
2 shall—

3           (1) support a program of research, develop-  
4           ment, demonstration, and commercial application of  
5           technologies and practices designed to mitigate or  
6           preclude potential adverse environmental impacts of  
7           geothermal energy development, production or use,  
8           and seek to ensure that geothermal energy develop-  
9           ment is consistent with the highest practicable  
10          standards of environmental stewardship; and

11          (2) in conjunction with the Assistant Adminis-  
12          trator for Research and Development at the Envi-  
13          ronmental Protection Agency, support a research  
14          program to identify potential environmental impacts  
15          of geothermal energy development, production, and  
16          use, and ensure that the program described in para-  
17          graph (1) addresses such impacts, including effects  
18          on groundwater and local hydrology.

Page 7, lines 3 and 4, amend subparagraph (F) to read as follows:

1 (F) understanding seismic effects of res-  
2 ervoir engineering and stimulation.

Page 7, lines 16 and 17, amend clause (i) to read  
as follows:

3 (i) represent a different class of sub-  
4 surface geologic environments; and

Page 8, line 6, strike “**COST SHARING**” and insert  
“**GUIDELINES FOR COST SHARING AND PROPOSAL  
EVALUATION**”.

Page 8, line 21, redesignate paragraph (2) as para-  
graph (3).

Page 8, lines 11 through 20, strike paragraph (1)  
and insert the following:

5 (1) IN GENERAL.—Except as provided in para-  
6 graphs (2) and (3), the Secretary shall require be-  
7 tween 20 and 80 percent of the cost of a project de-  
8 scribed in subsection (a) to be borne by a non-Fed-  
9 eral entity or entities. The Secretary shall establish  
10 guidelines for determining the cost-share ratios for  
11 projects. The guidelines shall consider the relative  
12 risk of projects and the potential for return on in-  
13 vested capital. The guidelines shall also allow for a  
14 competitive bidding process to play a role in deter-

1 mining the final cost-share ratio. The Secretary shall  
2 have final discretion to establish the cost-share ratio  
3 for any given project.

4 (2) EXCLUSION.—Research or development ac-  
5 tivities of a basic or fundamental nature, as deter-  
6 mined by the appropriate officer of the Department  
7 of Energy, shall not be subject to any cost-share re-  
8 quirement.

Page 10, line 19, redesignate paragraph (6) as para-  
graph (7).

Page 10, after line 18, insert the following new  
paragraph:

9 (6) In evaluating proposals for projects with a  
10 field component, the Secretary shall, where appro-  
11 priate, give priority consideration to proposals that  
12 contain provisions to study local environmental im-  
13 pacts of the technologies developed or the operations  
14 undertaken.

Page 11, line 15, strike “7(d)(6)” and insert  
“7(d)(7)”.

Page 11, line 19, insert “and use” after “the devel-  
opment”.

Page 11, line 24, strike “and”.

Page 11, line 25, strike the period and insert “; and”.

Page 11, after line 25, insert the following new subparagraph:

1                   (E) technologies for electric power conver-  
2                   sion or direct use of geothermal energy.

Page 12, line 8, strike “7(d)(6)” and insert “7(d)(7)”.

Page 12, at the end of line 8, insert the following:  
“This Center is encouraged to seek opportunities to coordinate efforts and share information with international partners engaged in research and development of enhanced geothermal systems or engaged in collection of data related to enhanced geothermal systems development.”.

Page 12, line 11, insert a comma after “the Secretary”.

Page 12, line 13, insert “The Center shall collect and disseminate information on all subjects germane to the development and use of enhanced geothermal systems.” after “systems-related issues.”.

Page 13, line 1, and page 14, line 1, redesignate sections 9 and 10 as sections 10 and 12, respectively.

Page 13, before line 1, insert the following new section:

**1 SEC. 9. GEOPOWER AMERICA.**

2 The Secretary shall expand the Department of Ener-  
3 gy's GeoPower the West program to extend its geothermal  
4 technology transfer activities throughout the entire United  
5 States. The program shall be renamed "GeoPower Amer-  
6 ica". The program shall continue to be based in the De-  
7 partment of Energy office in Golden, Colorado.

Page 13, after line 25, insert the following new section:

**8 SEC. 11. APPLICABILITY OF OTHER LAWS.**

9 Nothing in this Act shall be construed as waiving the  
10 applicability of any requirement under any environmental  
11 or other Federal or State law.