

§ 1028. Hot dry rock geothermal energy**(a) Definition of enhanced geothermal systems**

In this section, the term “enhanced geothermal systems” has the meaning given the term in section 17191 of title 42.

(b) USGS program

The Secretary of the Interior, acting through the United States Geological Survey, and in consultation with the Secretary of Energy, shall establish a cooperative Government-private sector program with respect to hot dry rock geothermal energy resources on public lands (as such term is defined in section 1702(e) of title 43) and lands managed by the Department of Agriculture, other than any such public or other lands that are withdrawn from geothermal leasing. Such program shall include, but shall not be limited to, activities to identify, select, and classify those areas throughout the United States that have a high potential for hot dry rock geothermal energy production and activities to develop and disseminate information regarding the utilization of such areas for hot dry rock energy production. Such information may include information regarding field test processes and techniques for assuring that hot dry rock geothermal energy development projects are developed in an economically feasible manner without adverse environmental consequences. Utilizing the information developed by the Secretary, together with information developed in connection with other related programs carried out by other Federal agencies, the Secretary, acting through the United States Geological Survey, may also enter into contracts and cooperative agreements with any public or private entity to provide assistance to any such entity to enable such entity to carry out additional projects with respect to the utilization of hot dry rock geothermal energy resources which will further the purposes of this section.

(c) Update to geothermal resource assessment

The Secretary of the Interior, acting through the United States Geological Survey, and in consultation with the Secretary of Energy, shall update the 2008 United States geothermal resource assessment carried out by the United States Geological Survey, including—

(1) with respect to areas previously identified by the Department of Energy or the United States Geological Survey as having significant potential for hydrothermal energy or enhanced geothermal systems energy, by focusing on—

(A) improving the resolution of resource potential at systematic temperatures and depths, including temperatures and depths appropriate for power generation and direct use applications;

(B) quantifying the total potential to co-produce geothermal energy and minerals;

(C) incorporating data relevant to underground thermal energy storage and exchange, such as aquifer and soil properties; and

(D) producing high resolution maps, including—

(i) maps that indicate key subsurface parameters for electric and direct use resources; and

(ii) risk maps for induced seismicity based on geologic, geographic, and operational parameters; and

(2) to the maximum extent practicable, by coordinating with relevant State officials and institutions of higher education to expand geothermal assessments, including enhanced geothermal systems assessments, to include assessments for the Commonwealth of Puerto Rico and the States of Alaska and Hawaii.

(d) Authorization of appropriations

There are authorized to be appropriated such sums as may be necessary to carry out this section.

(Pub. L. 102-486, title XXV, §2501, Oct. 24, 1992, 106 Stat. 3101; Pub. L. 116-260, div. Z, title III, §3002(m), Dec. 27, 2020, 134 Stat. 2496.)

Editorial Notes**CODIFICATION**

Section was enacted as part of the Energy Policy Act of 1992, and not as part of the Geothermal Steam Act of 1970 which comprises this chapter.

AMENDMENTS

2020—Subsec. (a). Pub. L. 116-260, §3002(m)(2), added subsec. (a). Former subsec. (a) redesignated (b).

Subsec. (b). Pub. L. 116-260, §3002(m)(1), redesignated subsec. (a) as (b). Former subsec. (b) redesignated (d).

Subsec. (c). Pub. L. 116-260, §3002(m)(3), added subsec. (c).

Subsec. (d). Pub. L. 116-260, §3002(m)(1), (4), redesignated subsec. (b) as (d) and substituted “necessary” for “necessary”.

CHAPTER 24—GEOTHERMAL ENERGY RESEARCH, DEVELOPMENT, AND DEMONSTRATION**§§ 1101 to 1164. Repealed. Pub. L. 116-260, div. Z, title III, §3002(i)(3), Dec. 27, 2020, 134 Stat. 2495**

Section 1101, Pub. L. 93-410, §2, Sept. 3, 1974, 88 Stat. 1079, related to Congressional findings.

Section 1102, Pub. L. 93-410, §3, Sept. 3, 1974, 88 Stat. 1080, related to definitions for purposes of this chapter.

Section 1121, Pub. L. 93-410, title I, §101, Sept. 3, 1974, 88 Stat. 1080; Pub. L. 95-238, title V, §502, Feb. 25, 1978, 92 Stat. 86, related to formation of project.

Section 1122, Pub. L. 93-410, title I, §102, Sept. 3, 1974, 88 Stat. 1081; Pub. L. 102-154, title I, Nov. 13, 1991, 105 Stat. 1000, related to program definition.

Section 1123, Pub. L. 93-410, title I, §103, Sept. 3, 1974, 88 Stat. 1082; Pub. L. 95-238, title V, §503, Feb. 25, 1978, 92 Stat. 86; Pub. L. 102-154, title I, Nov. 13, 1991, 105 Stat. 1000, related to resource inventory and assessment program.

Section 1124, Pub. L. 93-410, title I, §104, Sept. 3, 1974, 88 Stat. 1083, related to research and development.

Section 1125, Pub. L. 93-410, title I, §105, Sept. 3, 1974, 88 Stat. 1084; Pub. L. 95-238, title V, §504, Feb. 25, 1978, 92 Stat. 86, related to geothermal demonstration plants and projects.

Section 1126, Pub. L. 93-410, title I, §106, Sept. 3, 1974, 88 Stat. 1085, related to scientific and technical education.

Section 1141, Pub. L. 93-410, title II, §201, Sept. 3, 1974, 88 Stat. 1086; Pub. L. 95-91, title III, §301(a), title VII, §§703, 707, Aug. 4, 1977, 91 Stat. 577, 606, 607; Pub. L. 95-238, title V, §§505-509, Feb. 25, 1978, 92 Stat. 86, 87; Pub. L. 96-294, title VI, §641(1), June 30, 1980, 94 Stat. 768; Pub. L. 99-514, §2, Oct. 22, 1986, 100 Stat. 2095; Pub. L. 103-437, §11(b), Nov. 2, 1994, 108 Stat. 4589, related to establishment of loan guaranty program.

Section 1142, Pub. L. 93-410, title II, § 202, Sept. 3, 1974, 88 Stat. 1087; Pub. L. 95-91, title III, § 301(a), title VII, §§ 703, 707, Aug. 4, 1977, 91 Stat. 577, 606, 607; Pub. L. 95-238, title V, § 510, Feb. 25, 1978, 92 Stat. 88, related to payment of guaranteed obligation by Secretary of Energy.

Section 1143, Pub. L. 93-410, title II, § 203, Sept. 3, 1974, 88 Stat. 1087; Pub. L. 96-294, title VI, § 641(2), June 30, 1980, 94 Stat. 769; Pub. L. 102-558, title III, § 301, Oct. 28, 1992, 106 Stat. 4224, related to period of guaranties and interest assistance.

Section 1144, Pub. L. 93-410, title II, § 204, Sept. 3, 1974, 88 Stat. 1087; Pub. L. 95-91, title III, § 301(a), title VII, §§ 703, 707, Aug. 4, 1977, 91 Stat. 577, 606, 607; Pub. L. 95-238, title V, § 511, Feb. 25, 1978, 92 Stat. 89, related to Geothermal Resources Development Fund.

Section 1145, Pub. L. 93-410, title II, § 205, as added Pub. L. 95-238, title V, § 512, Feb. 25, 1978, 92 Stat. 89; amended Pub. L. 95-91, title III, § 301(a), title VII, §§ 703, 707, Aug. 4, 1977, 91 Stat. 577, 606, 607, related to community impact assistance functions of Secretary of Energy.

Section 1146, Pub. L. 93-410, title II, § 206, as added Pub. L. 96-294, title VI, § 641(3), June 30, 1980, 94 Stat. 769, related to approval or disapproval of loan guarantee applications.

Section 1147, Pub. L. 93-410, title II, § 207, as added Pub. L. 96-294, title VI, § 641(3), June 30, 1980, 94 Stat. 769, related to application of national environmental policy provisions.

Section 1161, Pub. L. 93-410, title III, § 301, Sept. 3, 1974, 88 Stat. 1088, related to protection of environment.

Section 1162, Pub. L. 93-410, title III, § 302, Sept. 3, 1974, 88 Stat. 1088; Pub. L. 104-66, title I, § 1051(m), Dec. 21, 1995, 109 Stat. 717, related to final report to President and Congress on terminated projects.

Section 1163, Pub. L. 93-410, title III, § 303, Sept. 3, 1974, 88 Stat. 1088, related to transfer of functions.

Section 1164, Pub. L. 93-410, title III, § 304, Sept. 3, 1974, 88 Stat. 1089, related to authorization of appropriations.

Statutory Notes and Related Subsidiaries

SHORT TITLE

Pub. L. 93-410, § 1, Sept. 3, 1974, 88 Stat. 1079, provided that Pub. L. 93-410 (enacting this chapter) could be cited as the "Geothermal Energy Research, Development, and Demonstration Act of 1974", prior to repeal by Pub. L. 116-260, div. Z, title III, § 3002(i)(3), Dec. 27, 2020, 134 Stat. 2495.

CHAPTER 25—SURFACE MINING CONTROL AND RECLAMATION

SUBCHAPTER I—STATEMENT OF FINDINGS AND POLICY

- Sec.
1201. Congressional findings.
1202. Statement of purpose.

SUBCHAPTER II—OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

1211. Office of Surface Mining Reclamation and Enforcement.

SUBCHAPTER III—STATE MINING AND MINERAL RESOURCES RESEARCH INSTITUTES

1221. Authorization of State allotments to institutes.
1222. Research funds to institutes.
1223. Funding criteria.
1224. Duties of Secretary.
1225. Effect on colleges and universities.
1226. Research.
1227. Center for cataloging.
1228. Interagency cooperation.
1229. Committee on Mining and Mineral Resources Research.

- Sec.
1230. Eligibility criteria.
1230a. Strategic Resources Generic Mineral Technology Center.

SUBCHAPTER IV—ABANDONED MINE RECLAMATIONS

1231. Abandoned Mine Reclamation Fund.
1231a. Abandoned mine reclamation fund authorization of appropriations.
1232. Reclamation fee.
1233. Objectives of fund.
1234. Eligible lands and water.
1235. State reclamation program.
1236. Reclamation of rural lands.
1237. Acquisition and reclamation of land adversely affected by past coal mining practices.
1238. Liens.
1239. Filling voids and sealing tunnels.
1240. Emergency powers.
1240a. Certification.
1241. Omitted.
1242. Powers of Secretary or State.
1243. Interagency cooperation.
1244. Remining incentives.
1245. Abandoned hardrock mine reclamation.

SUBCHAPTER V—CONTROL OF THE ENVIRONMENTAL IMPACTS OF SURFACE COAL MINING

1251. Environmental protection standards.
1251a. Abandoned coal refuse sites.
1252. Initial regulatory procedures.
1253. State programs.
1254. Federal programs.
1255. State laws.
1256. Permits.
1257. Application requirements.
1258. Reclamation plan requirements.
1259. Performance bonds.
1260. Permit approval or denial.
1261. Revision of permits.
1262. Coal exploration permits.
1263. Public notice and public hearings.
1264. Decisions of regulatory authority and appeals.
1265. Environmental protection performance standards.
1266. Surface effects of underground coal mining operations.
1267. Inspections and monitoring.
1268. Penalties.
1269. Release of performance bonds or deposits.
1270. Citizens suits.
1271. Enforcement.
1272. Designating areas unsuitable for surface coal mining.
1273. Federal lands.
1274. Public agencies, public utilities, and public corporations.
1275. Review by Secretary.
1276. Judicial review.
1277. Special bituminous coal mines.
1278. Surface mining operations not subject to this chapter.
1279. Anthracite coal mines.

SUBCHAPTER VI—DESIGNATION OF LANDS UNSUITABLE FOR NONCOAL MINING

1281. Designation procedures.

SUBCHAPTER VII—ADMINISTRATIVE AND MISCELLANEOUS PROVISIONS

1291. Definitions.
1292. Other Federal laws.
1293. Employee protection.
1294. Penalty.
1295. Grants to States.
1296. Annual report to President and Congress.
1297. Separability.