

HOUSE COMMITTEE OF REFERENCE REPORT

\_\_\_\_\_  
Chair of Committee

February 16, 2023  
Date

Committee on Energy & Environment.

After consideration on the merits, the Committee recommends the following:

HB23-1069 be amended as follows, and as so amended, be referred to the Committee on Appropriations with favorable recommendation:

1 Amend printed bill, strike everything below the enacting clause and  
2 substitute:

3           **"SECTION 1. Legislative declaration.** (1) The general  
4 assembly finds and declares that:

5           (a) It is important to focus on finding innovative solutions to:

6           (I) Mitigate the impacts of climate change;

7           (II) Further protect human and animal health; and

8           (III) Lower the carbon footprint of current methods of plugging  
9 oil and gas wells;

10           (b) The state recognizes the importance of regulating the oil and  
11 gas industry and supports the implementation of practices and  
12 technologies to address emission reduction goals and research to develop  
13 these practices and technologies;

14           (c) The state should continue to regulate the plugging of oil and  
15 gas wells by both state agencies and the oil and gas industry;

16           (d) It is important to create opportunities for the oil and gas  
17 industry to permanently sequester carbon from the atmosphere;

18           (e) Exploring the use of biochar in oil and gas well plugging  
19 operations may potentially open up economic opportunities for Colorado  
20 to become a leader in the use of biochar in oil and gas well plugging  
21 operations; and

22           (f) Biochar could be beneficial to efforts by the oil and gas  
23 industry to reduce greenhouse gas emissions in Colorado.

24           (2) The general assembly further finds and declares that it is in the  
25 interest of Colorado to convene a working advisory group that  
26 coordinates with Colorado state university and makes recommendations  
27 on establishing a pilot program to study the use of biochar in oil and gas

1 well plugging operations.

2 **SECTION 2.** In Colorado Revised Statutes, **add** 34-60-134 as  
3 follows:

4 **34-60-134. Biochar in oil and gas well plugging working**  
5 **advisory group - created - members - study by Colorado state**  
6 **university - recommendations for the development of a pilot program**  
7 **- report - definitions - repeal.** (1) AS USED IN THIS SECTION, UNLESS THE  
8 CONTEXT OTHERWISE REQUIRES:

9 (a) "BIOCHAR" MEANS THE SOLID CARBON-RICH PRODUCT MADE  
10 WHEN WOODY BIOMASS UNDERGOES PYROLYSIS IN AN OXYGEN-DEPLETED  
11 ATMOSPHERE AT APPROXIMATELY EIGHT HUNDRED DEGREES CELSIUS.

12 (b) "COLORADO ENERGY OFFICE" MEANS THE COLORADO ENERGY  
13 OFFICE CREATED IN SECTION 24-38.5-101 (1).

14 (c) "DIRECTOR" MEANS THE DIRECTOR OF THE COMMISSION  
15 APPOINTED PURSUANT TO SECTION 34-60-104.5 (1) OR THE DIRECTOR'S  
16 DESIGNEE.

17 (d) "ENVIRONMENTAL JUSTICE ADVISORY BOARD" MEANS THE  
18 ENVIRONMENTAL JUSTICE ADVISORY BOARD CREATED IN SECTION  
19 25-1-134 (2)(a).

20 (e) "LOCAL GOVERNMENT" MEANS A HOME RULE OR STATUTORY  
21 COUNTY, MUNICIPALITY, OR CITY AND COUNTY.

22 (f) "PILOT PROGRAM" MEANS THE PILOT PROGRAM DESCRIBED IN  
23 SUBSECTION (4)(b) OF THIS SECTION.

24 (g) "SELECTED OIL AND GAS WELLS" MEANS THE OIL AND GAS  
25 WELLS SELECTED BY THE WORK GROUP PURSUANT TO SUBSECTION  
26 (4)(c)(II) OF THIS SECTION.

27 (h) "STATE FOREST SERVICE" MEANS THE COLORADO STATE  
28 FOREST SERVICE IDENTIFIED IN SECTION 23-31-302.

29 (i) "UNIVERSITY" MEANS COLORADO STATE UNIVERSITY  
30 ESTABLISHED IN SECTION 23-31-101.

31 (j) "WORK GROUP" MEANS THE BIOCHAR IN OIL AND GAS WELL  
32 PLUGGING WORKING ADVISORY GROUP CREATED IN SUBSECTION (2)(a) OF  
33 THIS SECTION.

34 (2) (a) THE BIOCHAR IN OIL AND GAS WELL PLUGGING WORKING  
35 ADVISORY GROUP IS CREATED IN THE COMMISSION.

36 (b) THE WORK GROUP CONSISTS OF THE FOLLOWING MEMBERS:

37 (I) A MEMBER OF THE COMMISSION'S TECHNICAL STAFF WITH  
38 EXPERTISE IN ENGINEERING OR ORPHANED WELLS, APPOINTED BY THE  
39 DIRECTOR;

40 (II) A MEMBER REPRESENTING THE DEPARTMENT OF PUBLIC  
41 HEALTH AND ENVIRONMENT CREATED IN SECTION 24-1-119 (1),  
42 APPOINTED BY THE EXECUTIVE DIRECTOR OF THE DEPARTMENT OF PUBLIC  
43 HEALTH AND ENVIRONMENT;

1 (III) A MEMBER REPRESENTING THE COLORADO ENERGY OFFICE,  
2 APPOINTED BY THE DIRECTOR OF THE COLORADO ENERGY OFFICE;  
3 (IV) A MEMBER REPRESENTING THE OIL AND GAS INDUSTRY,  
4 APPOINTED BY THE DIRECTOR;  
5 (V) A MEMBER, APPOINTED BY THE DIRECTOR OF THE COLORADO  
6 ENERGY OFFICE, REPRESENTING AN ENVIRONMENTAL ADVOCACY  
7 ORGANIZATION WITH:  
8 (A) A FOCUS ON THE REDUCTION OF GREENHOUSE GAS EMISSIONS;  
9 AND  
10 (B) EXPERIENCE WITH CARBON REMOVAL AND SEQUESTRATION  
11 SOLUTIONS;  
12 (VI) A MEMBER WITH EXPERTISE IN THE BIOCHAR INDUSTRY,  
13 APPOINTED BY THE DIRECTOR; AND  
14 (VII) A MEMBER OF THE COMMISSION, WHO IS THE CHAIR OF THE  
15 WORK GROUP, APPOINTED BY THE DIRECTOR.  
16 (c) THE WORK GROUP ALSO CONSISTS OF THE FOLLOWING  
17 MEMBERS, WHO SHALL PARTICIPATE IN THE WORK GROUP IN AN ADVISORY,  
18 NONVOTING CAPACITY:  
19 (I) A MEMBER REPRESENTING THE STATE FOREST SERVICE,  
20 APPOINTED BY THE DIRECTOR OF THE STATE FOREST SERVICE;  
21 (II) A MEMBER REPRESENTING A BIOCHAR MANUFACTURING  
22 ENTITY LOCATED IN THE STATE, APPOINTED BY THE DIRECTOR;  
23 (III) A MEMBER REPRESENTING A LOCAL GOVERNMENT WHO HAS  
24 A DEMONSTRATED FOCUS ON ENVIRONMENTAL AIR QUALITY ISSUES, WITH  
25 CLIMATE PROTECTION AS A DEMONSTRATED PRIORITY, APPOINTED BY THE  
26 DIRECTOR OF THE COLORADO ENERGY OFFICE;  
27 (IV) A MEMBER, APPOINTED BY THE DIRECTOR, REPRESENTING THE  
28 FEDERAL BUREAU OF LAND MANAGEMENT WHO HAS KNOWLEDGE  
29 CONCERNING:  
30 (A) THE FEDERAL STANDARDS FOR PLUGGING OIL AND GAS WELLS;  
31 AND  
32 (B) THE OPPORTUNITIES FOR OBTAINING FEDERAL FUNDING FOR  
33 THE PILOT PROGRAM;  
34 (V) A MEMBER WITH EXPERTISE IN PLUGGING AND ABANDONMENT  
35 OPERATIONS AND METHANE MITIGATION FROM WELLBORES, APPOINTED BY  
36 THE DIRECTOR;  
37 (VI) A MEMBER OF THE ENVIRONMENTAL JUSTICE ADVISORY  
38 BOARD, APPOINTED BY THE CHAIR OF THE ENVIRONMENTAL JUSTICE  
39 ADVISORY BOARD; AND  
40 (VII) A MEMBER REPRESENTING THE INTERESTS OF  
41 DISPROPORTIONATELY IMPACTED COMMUNITIES, AS DEFINED IN SECTION  
42 24-4-109 (2)(b)(II), APPOINTED BY THE CHAIR OF THE ENVIRONMENTAL  
43 JUSTICE ADVISORY BOARD.

1 (d) THE APPOINTING AUTHORITIES SHALL MAKE ALL  
2 APPOINTMENTS TO THE WORK GROUP NO LATER THAN JULY 1, 2023. THE  
3 MEMBERS OF THE WORK GROUP SERVE WITHOUT COMPENSATION BUT  
4 SHALL BE REIMBURSED FOR EXPENSES INCURRED BY THEM IN THE  
5 PERFORMANCE OF THEIR OFFICIAL DUTIES.

6 (e) THE WORK GROUP SHALL CONDUCT MEETINGS AS OFTEN AS  
7 NECESSARY TO PERFORM THE WORK GROUP'S DUTIES PURSUANT TO THIS  
8 SECTION, INCLUDING CONSULTING AND COORDINATING WITH THE  
9 UNIVERSITY ON THE UNIVERSITY'S DUTIES PURSUANT TO THIS SECTION.

10 (3) (a) THE UNIVERSITY SHALL:

11 (I) REVIEW PEER-REVIEWED SCIENTIFIC ARTICLES AND STUDIES ON  
12 BIOCHAR'S CAPACITY TO:

13 (A) LOWER GREENHOUSE GAS EMISSIONS;  
14 (B) LOWER CHEMICAL LEAKS;  
15 (C) REMOVE AND SEQUESTER CARBON;  
16 (D) LOWER THE CARBON FOOTPRINT IN CEMENT;  
17 (E) ADD STRENGTH TO CEMENT; AND  
18 (F) BIND CHEMICALS SUCH AS METHANE, BENZENE, AND CARBON  
19 DIOXIDE FROM FUGITIVE EMISSIONS;

20 (II) REVIEW ANY APPLICABLE FEDERAL LAWS AND LAWS OF OTHER  
21 STATES THAT ADDRESS THE USE OF BIOCHAR IN THE PLUGGING OF OIL AND  
22 GAS WELLS;

23 (III) CONDUCT DESK RESEARCH RELATED TO BIOCHAR, INCLUDING  
24 GEOMECHANICAL MODELING AND CALCULATIONS TO LIMIT VARIABLES;

25 (IV) CONDUCT LABORATORY RESEARCH, INCLUDING RESEARCH TO  
26 CHARACTERIZE:

27 (A) THE MECHANICAL STRENGTH, PERMEABILITY, PORE  
28 STRUCTURE, AND GAS ABSORPTION OF BIOCHAR;

29 (B) THE GEOCHEMICAL REACTION OF BIOCHAR WITH WATER FROM  
30 AN UNDERGROUND FORMATION; AND

31 (C) THE CHEMICAL REACTION OF BIOCHAR WITH CEMENT USED IN  
32 THE PLUGGING OF OIL AND GAS WELLS;

33 (V) EVALUATE WHETHER ANY FEDERAL OR STATE PROGRAMS OR  
34 PRIVATE ENTITIES COULD PROVIDE FUNDING FOR THE PILOT PROGRAM;

35 (VI) ASSESS THE COSTS ASSOCIATED WITH USING BIOCHAR IN THE  
36 PLUGGING OF AN OIL AND GAS WELL;

37 (VII) DETERMINE THE AMOUNT OF BIOCHAR THAT IS AVAILABLE  
38 FOR USE IN THE STATE;

39 (VIII) EXAMINE WHETHER THE USE OF BIOCHAR IN THE PLUGGING  
40 OF OIL AND GAS WELLS IS CONSISTENT WITH THE STATE'S SHORT-TERM AND  
41 LONG-TERM GREENHOUSE GAS AND POLLUTION REDUCTION GOALS, AS SET  
42 FORTH IN SECTION 25-7-102 (2)(g), TAKING INTO CONSIDERATION THE  
43 EMISSIONS OF GREENHOUSE GASES AND OTHER POLLUTANTS CAUSED BY

1 THE PRODUCTION OF BIOCHAR AND THE USE OF BIOCHAR IN THE PLUGGING  
2 OF OIL AND GAS WELLS; AND  
3 (IX) DETERMINE WHETHER THE USE OF BIOCHAR WHEN PLUGGING  
4 AN OIL AND GAS WELL:  
5 (A) COULD, WITH VERIFIED NET PERMANENT REMOVAL OF  
6 ATMOSPHERIC CARBON AS ESTABLISHED ACCORDING TO  
7 INTERNATIONALLY RECOGNIZED STANDARDS, ALLOW AN OPERATOR OR  
8 OTHER PERSON PLUGGING AN OIL AND GAS WELL TO RECEIVE LEGITIMATE  
9 CARBON CREDITS OR OFFSETS;  
10 (B) WOULD REQUIRE ANY CHANGES TO STATE LAW TO ALLOW THE  
11 USE OF BIOCHAR IN THE PLUGGING OF AN OIL AND GAS WELL OR TO ALLOW  
12 A STATE AGENCY TO COORDINATE WITH APPLICABLE FEDERAL AGENCIES  
13 AND OTHER ENTITIES IN THE IMPLEMENTATION OF THE PILOT PROGRAM;  
14 AND  
15 (C) WOULD COMPLY, IN THE CASE OF PLUGGING AN OIL AND GAS  
16 WELL OWNED BY THE UNITED STATES OR A TRIBAL LAND TRUST, WITH  
17 FEDERAL LAW OR ANY OTHER APPLICABLE LAW.  
18 (b) IN PERFORMING ITS DUTIES PURSUANT TO SUBSECTION (3)(a)  
19 OF THIS SECTION, THE UNIVERSITY SHALL UTILIZE ANY APPLICABLE  
20 EXISTING FEDERAL, STATE, OR LOCAL PROGRAMS OR FUNDING AND MAY  
21 COORDINATE AND CONSULT WITH OTHER INSTITUTIONS OF HIGHER  
22 EDUCATION.  
23 (4) (a) NO LATER THAN MARCH 1, 2024, THE UNIVERSITY SHALL  
24 PROVIDE AN UNOFFICIAL PROGRESS REPORT OF ITS FINDINGS PURSUANT TO  
25 SUBSECTION (3)(a) OF THIS SECTION TO THE WORK GROUP.  
26 (b) NO LATER THAN JUNE 1, 2024, THE UNIVERSITY SHALL PROVIDE  
27 AN OFFICIAL REPORT OF ITS FINDINGS PURSUANT TO SUBSECTION (3)(a) OF  
28 THIS SECTION TO THE WORK GROUP. IF, BASED ON THE REPORT, THE WORK  
29 GROUP DETERMINES THAT A PILOT PROGRAM TO STUDY THE USE OF  
30 BIOCHAR IN THE PLUGGING OF OIL AND GAS WELLS WOULD HAVE A  
31 POSITIVE IMPACT ON THE HEALTH, SAFETY, AND WELFARE OF THE STATE  
32 AND WOULD BE CONSISTENT WITH THE STATE'S SHORT-TERM AND  
33 LONG-TERM GREENHOUSE GAS AND POLLUTION REDUCTION GOALS, AS SET  
34 FORTH IN SECTION 25-7-102 (2)(g), THE WORK GROUP SHALL, NO LATER  
35 THAN AUGUST 1, 2024, DIRECT THE UNIVERSITY TO MAKE  
36 RECOMMENDATIONS REGARDING THE DEVELOPMENT OF THE PILOT  
37 PROGRAM.  
38 (c) THE RECOMMENDATIONS PURSUANT TO SUBSECTION (4)(b) OF  
39 THIS SECTION MUST INCLUDE RECOMMENDATIONS REGARDING A PLAN TO:  
40 (I) DEVELOP STANDARDS FOR:  
41 (A) USING BIOCHAR IN THE PLUGGING OF THE SELECTED OIL AND  
42 GAS WELLS;  
43 (B) MONITORING THE EMISSIONS OF THE SELECTED OIL AND GAS

1 WELLS; AND  
2 (C) COMPARING EMISSIONS DATA FROM THE SELECTED OIL AND  
3 GAS WELLS TO EMISSIONS DATA FROM OIL AND GAS WELLS THAT HAVE NOT  
4 BEEN PLUGGED USING BIOCHAR;  
5 (II) SELECT OIL AND GAS WELLS WHERE AN OPERATOR OR OTHER  
6 PERSON PLUGGING AN OIL AND GAS WELL WILL USE BIOCHAR WHEN  
7 PLUGGING THE WELL IN ACCORDANCE WITH THE STANDARDS DEVELOPED  
8 PURSUANT TO SUBSECTION (4)(c)(I)(A) OF THIS SECTION; AND  
9 (III) CONTINUE, AFTER THE SELECTED OIL AND GAS WELLS ARE  
10 PLUGGED, TO:  
11 (A) MONITOR EMISSIONS AND COMPARE EMISSIONS DATA FROM  
12 THE SELECTED OIL AND GAS WELLS IN ACCORDANCE WITH THE STANDARDS  
13 DEVELOPED PURSUANT TO SUBSECTIONS (4)(c)(I)(B) AND (4)(c)(I)(C) OF  
14 THIS SECTION;  
15 (B) ASSESS THE CONDITION OF THE SELECTED OIL AND GAS WELLS;  
16 AND  
17 (C) CONDUCT LABORATORY TESTING ON THE SELECTED OIL AND  
18 GAS WELLS TO DETERMINE THE ABILITY OF BIOCHAR TO ABSORB OR  
19 ADSORB METHANE AND OTHER CHEMICALS FOUND IN A PLUGGED OIL AND  
20 GAS WELL AND TO DETERMINE THE BEST ESTIMATE OF THE LONG-TERM  
21 DURABILITY OF BIOCHAR WHEN USED IN THE PLUGGING OF AN OIL AND GAS  
22 WELL.  
23 (d) THE RECOMMENDATIONS PURSUANT TO SUBSECTION (4)(b) OF  
24 THIS SECTION MUST INCLUDE, AT A MINIMUM, RECOMMENDATIONS  
25 REGARDING:  
26 (I) THE ESTIMATED COSTS TO IMPLEMENT THE PILOT PROGRAM;  
27 (II) THE DURATION OF THE PILOT PROGRAM;  
28 (III) A DETAILED PLAN FOR THE IMPLEMENTATION OF THE PILOT  
29 PROGRAM BY THE COMMISSION;  
30 (IV) A DESCRIPTION OF ANY OPPORTUNITIES TO WORK WITH OR  
31 RECEIVE FUNDING FROM FEDERAL AGENCIES OR PRIVATE ENTITIES IN THE  
32 IMPLEMENTATION OF THE PILOT PROGRAM; AND  
33 (V) A PROCESS FOR REPORTING THE FINDINGS OF THE PILOT  
34 PROGRAM.  
35 (5) NO LATER THAN DECEMBER 1, 2024, THE UNIVERSITY SHALL  
36 SUBMIT A DRAFT REPORT DESCRIBING ITS RECOMMENDATIONS FOR THE  
37 DEVELOPMENT OF A PILOT PROGRAM PURSUANT TO SUBSECTIONS (4)(b),  
38 (4)(c), AND (4)(d) OF THIS SECTION TO THE WORK GROUP. NO LATER THAN  
39 DECEMBER 15, 2024, THE UNIVERSITY SHALL:  
40 (a) IN CONSULTATION WITH THE WORK GROUP, CREATE A FINAL  
41 REPORT THAT INCORPORATES THE WORK GROUP'S COMMENTS REGARDING  
42 THE DRAFT REPORT; AND  
43 (b) PROVIDE A COPY OF THE FINAL REPORT TO THE DIRECTOR.

1           (6) THE DIRECTOR SHALL POST A COPY OF THE FINAL REPORT  
2 DESCRIBED IN SUBSECTION (5)(b) OF THIS SECTION ON THE COMMISSION'S  
3 WEBSITE.

4           (7) THIS SECTION IS REPEALED, EFFECTIVE SEPTEMBER 1, 2025.

5           **SECTION 3. Safety clause.** The general assembly hereby finds,  
6 determines, and declares that this act is necessary for the immediate  
7 preservation of the public peace, health, or safety."

\*\* \*\*\* \*\* \*\*\* \*\*