

First Regular Session
Seventy-fourth General Assembly
STATE OF COLORADO

INTRODUCED

LLS NO. 23-0267.01 Sarah Lozano x3858

HOUSE BILL 23-1069

HOUSE SPONSORSHIP

McCormick and Amabile,

SENATE SPONSORSHIP

Cutter,

House Committees
Energy & Environment

Senate Committees

A BILL FOR AN ACT

101 CONCERNING THE CREATION OF THE BIOCHAR IN OIL AND GAS WELL
102 PLUGGING WORKING ADVISORY GROUP TO MAKE
103 RECOMMENDATIONS FOR THE DEVELOPMENT OF A PILOT
104 PROGRAM TO STUDY THE USE OF BIOCHAR IN THE PLUGGING OF
105 OIL AND GAS WELLS.

Bill Summary

(Note: This summary applies to this bill as introduced and does not reflect any amendments that may be subsequently adopted. If this bill passes third reading in the house of introduction, a bill summary that applies to the reengrossed version of this bill will be available at <http://leg.colorado.gov>.)

The bill creates the biochar in oil and gas well plugging working advisory group (work group) in the oil and gas conservation commission

Shading denotes HOUSE amendment. Double underlining denotes SENATE amendment.
Capital letters or bold & italic numbers indicate new material to be added to existing law.
Dashes through the words or numbers indicate deletions from existing law.

(commission). The work group's purpose is to make recommendations for the development of a pilot program to study the use of biochar in the plugging of oil and gas wells.

No later than September 1, 2023, the work group must submit a draft report to the commission detailing its recommendations for the pilot program. After coordinating with the commission to develop a final report, no later than February 1, 2024, the work group must present the report to the transportation and energy committee of the senate and the energy and environment committee of the house of representatives.

1 *Be it enacted by the General Assembly of the State of Colorado:*

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

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

5 (I) Mitigate the impacts of climate change;

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

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

9 (b) It is also important to create opportunities to partner with the
10 oil and gas industry on methods to permanently sequester carbon from the
11 atmosphere;

12 (c) Exploring the use of biochar in oil and gas well plugging
13 operations may potentially open up economic opportunities for Colorado
14 to become a leader in the use of biochar in oil and gas well plugging
15 operations; and

16 (d) Biochar could be beneficial to efforts by the oil and gas
17 industry to reduce greenhouse gas emissions in Colorado.

18 (2) The general assembly further finds and declares that it is in the
19 interest of Colorado to convene a working advisory group to make
20 recommendations on establishing a pilot program to study the use of

1 biochar in oil and gas 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 - recommendations for the**
6 **development of a pilot program - report - definitions - repeal.** (1) AS
7 USED IN THIS SECTION, UNLESS THE CONTEXT OTHERWISE REQUIRES:

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

11 (b) "DIRECTOR" MEANS THE DIRECTOR OF THE COMMISSION
12 APPOINTED PURSUANT TO SECTION 34-60-104.5 (1) OR THE DIRECTOR'S
13 DESIGNEE.

14 (c) "LOCAL GOVERNMENT" MEANS A HOME RULE OR STATUTORY
15 COUNTY, MUNICIPALITY, OR CITY AND COUNTY.

16 (d) "PILOT PROGRAM" MEANS THE PILOT PROGRAM DESCRIBED IN
17 SUBSECTION (6)(a) OF THIS SECTION.

18 (e) "SELECTED OIL AND GAS WELLS" MEAN THE OIL AND GAS WELLS
19 SELECTED BY THE WORK GROUP PURSUANT TO SUBSECTION (6)(b)(IV) OF
20 THIS SECTION.

21 (f) "WORK GROUP" MEANS THE BIOCHAR IN OIL AND GAS WELL
22 PLUGGING WORKING ADVISORY GROUP CREATED IN SUBSECTION (2) OF
23 THIS SECTION.

24 (2) THE BIOCHAR IN OIL AND GAS WELL PLUGGING WORKING
25 ADVISORY GROUP IS HEREBY CREATED IN THE COMMISSION.

26 (3) THE WORK GROUP CONSISTS OF THE FOLLOWING MEMBERS:

27 (a) A MEMBER REPRESENTING THE COMMISSION'S ORPHANED WELL

1 PROGRAM, APPOINTED BY THE DIRECTOR;

2 (b) A MEMBER REPRESENTING THE COMMISSION'S ENGINEERING
3 UNIT WHO HAS SIGNIFICANT EXPERIENCE WITH CLIMATE CHANGE
4 SOLUTIONS IN ENGINEERING, APPOINTED BY THE DIRECTOR;

5 (c) A MEMBER REPRESENTING THE DEPARTMENT OF PUBLIC
6 HEALTH AND ENVIRONMENT CREATED IN SECTION 24-1-119 (1),
7 APPOINTED BY THE EXECUTIVE DIRECTOR OF THE DEPARTMENT OF PUBLIC
8 HEALTH AND ENVIRONMENT;

9 (d) A MEMBER REPRESENTING THE COLORADO ENERGY OFFICE
10 CREATED IN SECTION 24-38.5-101 (1), APPOINTED BY THE DIRECTOR OF
11 THE COLORADO ENERGY OFFICE;

12 (e) A MEMBER REPRESENTING THE COLORADO STATE FOREST
13 SERVICE IDENTIFIED IN SECTION 23-31-302, APPOINTED BY THE DIRECTOR
14 OF THE STATE FOREST SERVICE;

15 (f) A MEMBER REPRESENTING THE OIL AND GAS INDUSTRY,
16 APPOINTED BY THE DIRECTOR;

17 (g) A MEMBER REPRESENTING THE ACADEMIC COMMUNITY WHO IS
18 A CIVIL AND ENVIRONMENTAL ENGINEER WITH PREVIOUS WORK
19 EXPERIENCE IN ENGINEERING GEOSYSTEMS IN THE CONTEXT OF CLIMATE
20 CHANGE MITIGATION, APPOINTED BY THE DIRECTOR OF THE COLORADO
21 ENERGY OFFICE;

22 (h) A MEMBER REPRESENTING THE ACADEMIC COMMUNITY WHO
23 HAS A BACKGROUND IN PETROLEUM ENGINEERING, APPOINTED BY THE
24 DIRECTOR OF THE COLORADO ENERGY OFFICE;

25 (i) A MEMBER REPRESENTING AN ENVIRONMENTAL ADVOCACY
26 ORGANIZATION WITH A FOCUS ON THE REDUCTION OF GREENHOUSE GAS
27 EMISSIONS FROM THE OIL AND GAS INDUSTRY, APPOINTED BY THE

1 DIRECTOR OF THE COLORADO ENERGY OFFICE;

2 (j) A MEMBER REPRESENTING AN ENVIRONMENTAL ADVOCACY
3 ORGANIZATION WITH EXPERIENCE WITH CARBON REMOVAL AND
4 SEQUESTRATION SOLUTIONS, APPOINTED BY THE DIRECTOR OF THE
5 COLORADO ENERGY OFFICE;

6 (k) A MEMBER WITH EXPERTISE IN THE BIOCHAR INDUSTRY,
7 APPOINTED BY THE DIRECTOR;

8 (l) A MEMBER REPRESENTING A BIOCHAR MANUFACTURING ENTITY
9 LOCATED IN THE STATE, APPOINTED BY THE DIRECTOR;

10 (m) A MEMBER REPRESENTING A LOCAL GOVERNMENT WITH A
11 DEMONSTRATED FOCUS ON ENVIRONMENTAL AIR QUALITY ISSUES,
12 APPOINTED BY THE DIRECTOR;

13 (n) A MEMBER, APPOINTED BY THE DIRECTOR, REPRESENTING THE
14 FEDERAL BUREAU OF LAND MANAGEMENT WHO HAS KNOWLEDGE
15 CONCERNING:

16 (I) THE FEDERAL STANDARDS FOR PLUGGING OIL AND GAS WELLS;
17 AND

18 (II) THE OPPORTUNITIES FOR OBTAINING FEDERAL FUNDING FOR
19 THE PILOT PROGRAM; AND

20 (o) A MEMBER OF THE COMMISSION, WHO IS THE CHAIR OF THE
21 WORK GROUP, APPOINTED BY THE DIRECTOR.

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

27 (5) (a) THE WORK GROUP SHALL REVIEW MATERIALS RELEVANT TO

1 THE WORK GROUP'S DUTIES PURSUANT TO THIS SECTION, INCLUDING:

2 (I) PEER-REVIEWED SCIENTIFIC ARTICLES AND STUDIES ON THE USE
3 OF BIOCHAR IN THE PLUGGING OF OIL AND GAS WELLS; AND

4 (II) ANY LAWS OF THE UNITED STATES AND OTHER STATES TO
5 ADDRESS THE USE OF BIOCHAR IN THE PLUGGING OF OIL AND GAS WELLS.

6 (b) THE WORK GROUP SHALL ALSO EVALUATE WHETHER ANY
7 FEDERAL OR STATE PROGRAMS OR PRIVATE ENTITIES COULD PROVIDE
8 FUNDING FOR THE PILOT PROGRAM.

9 (6) (a) IF THE WORK GROUP DETERMINES THAT A PILOT PROGRAM
10 TO STUDY THE USE OF BIOCHAR IN THE PLUGGING OF OIL AND GAS WELLS
11 WOULD HAVE A POSITIVE IMPACT ON THE HEALTH, SAFETY, AND WELFARE
12 OF THE STATE, THE WORK GROUP SHALL USE THE INFORMATION REVIEWED
13 AND EVALUATED PURSUANT TO SUBSECTION (5) OF THIS SECTION TO MAKE
14 RECOMMENDATIONS REGARDING THE DEVELOPMENT OF A PILOT PROGRAM.

15 (b) THE WORK GROUP'S RECOMMENDATIONS PURSUANT TO
16 SUBSECTION (6)(a) OF THIS SECTION MUST INCLUDE, AS PART OF THE PILOT
17 PROGRAM, A PLAN TO:

18 (I) CONDUCT DESK RESEARCH, INCLUDING GEOMECHANICAL
19 MODELING AND CALCULATIONS TO LIMIT VARIABLES;

20 (II) CONDUCT LABORATORY RESEARCH, INCLUDING RESEARCH TO
21 CHARACTERIZE:

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

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

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

1 (III) DEVELOP STANDARDS FOR:

2 (A) USING BIOCHAR IN THE PLUGGING OF THE SELECTED OIL AND
3 GAS WELLS; AND

4 (B) MONITORING THE EMISSIONS OF THE SELECTED OIL AND GAS
5 WELLS;

6 (IV) SELECT OIL AND GAS WELLS WHERE AN OPERATOR OR OTHER
7 PERSON PLUGGING AN OIL AND GAS WELL WILL USE BIOCHAR IN THE
8 PLUGGING OF THE WELL IN ACCORDANCE WITH THE STANDARDS
9 DEVELOPED BY THE WORK GROUP PURSUANT TO SUBSECTION (6)(b)(III)(A)
10 OF THIS SECTION; AND

11 (V) CONTINUE, AFTER THE SELECTED OIL AND GAS WELLS ARE
12 PLUGGED, TO:

13 (A) MONITOR EMISSIONS FROM THE SELECTED OIL AND GAS WELLS
14 IN ACCORDANCE WITH THE STANDARDS DEVELOPED BY THE WORK GROUP
15 PURSUANT TO SUBSECTION (6)(b)(III)(B) OF THIS SECTION;

16 (B) ASSESS THE CONDITION OF THE SELECTED OIL AND GAS WELLS;
17 AND

18 (C) CONDUCT LABORATORY TESTING ON THE SELECTED OIL AND
19 GAS WELLS TO DETERMINE THE ABILITY OF BIOCHAR TO ABSORB OR
20 ADSORB METHANE AND OTHER CHEMICALS FOUND IN A PLUGGED OIL AND
21 GAS WELL AND TO DETERMINE THE BEST ESTIMATE OF THE LONG-TERM
22 DURABILITY OF BIOCHAR WHEN USED IN THE PLUGGING OF AN OIL AND GAS
23 WELL.

24 (c) THE WORK GROUP'S RECOMMENDATIONS PURSUANT TO
25 SUBSECTION (6)(a) OF THIS SECTION MUST ALSO, AT A MINIMUM, INCLUDE
26 AN ASSESSMENT OF:

27 (I) THE COSTS ASSOCIATED WITH USING BIOCHAR IN THE PLUGGING

1 OF AN OIL AND GAS WELL;

2 (II) THE AMOUNT OF BIOCHAR THAT IS AVAILABLE FOR USE IN THE
3 STATE; AND

4 (III) WHETHER THE USE OF BIOCHAR WHEN PLUGGING AN OIL AND
5 GAS WELL WOULD:

6 (A) ALLOW AN OPERATOR OR OTHER PERSON PLUGGING AN OIL
7 AND GAS WELL TO RECEIVE LEGITIMATE CARBON CREDITS OR OFFSETS;

8 (B) REQUIRE ANY CHANGES TO STATE LAW TO ALLOW THE USE OF
9 BIOCHAR IN THE PLUGGING OF AN OIL AND GAS WELL OR TO ALLOW A
10 STATE AGENCY TO COORDINATE WITH APPLICABLE FEDERAL AGENCIES
11 AND OTHER ENTITIES IN THE IMPLEMENTATION OF THE PILOT PROGRAM;
12 AND

13 (C) COMPLY, IN THE CASE OF PLUGGING AN OIL AND GAS WELL
14 OWNED BY THE UNITED STATES OR A TRIBAL LAND TRUST, WITH FEDERAL
15 LAW OR ANY OTHER APPLICABLE LAW.

16 (7) THE COMMISSION SHALL PROVIDE ADMINISTRATIVE SUPPORT
17 TO THE WORK GROUP AS MAY BE NECESSARY TO IMPLEMENT THIS SECTION.
18 THE COMMISSION MAY SEEK, ACCEPT, AND EXPEND GIFTS, GRANTS, OR
19 DONATIONS FROM PRIVATE OR PUBLIC SOURCES FOR THE PURPOSES OF THIS
20 SECTION.

21 (8) (a) THE WORK GROUP SHALL PREPARE A REPORT COVERING ITS
22 RECOMMENDATIONS FOR THE PILOT PROGRAM, INCLUDING THE
23 RECOMMENDATIONS SET FORTH IN SUBSECTION (6) OF THIS SECTION. THE
24 REPORT MUST ALSO, AT A MINIMUM, INCLUDE RECOMMENDATIONS
25 REGARDING:

26 (I) THE ESTIMATED COSTS TO IMPLEMENT THE PILOT PROGRAM;

27 (II) THE DURATION OF THE PILOT PROGRAM;

1 (III) A DETAILED PLAN FOR THE IMPLEMENTATION OF THE PILOT
2 PROGRAM, INCLUDING RECOMMENDATIONS REGARDING A STATE AGENCY
3 TO ADMINISTER THE PILOT PROGRAM;

4 (IV) A DESCRIPTION OF ANY OPPORTUNITIES TO WORK WITH OR
5 RECEIVE FUNDING FROM FEDERAL AGENCIES OR PRIVATE ENTITIES IN THE
6 IMPLEMENTATION OF THE PILOT PROGRAM; AND

7 (V) A PROCESS FOR REPORTING THE FINDINGS OF THE PILOT
8 PROGRAM.

9 (b) NO LATER THAN SEPTEMBER 1, 2023, THE WORK GROUP SHALL
10 PROVIDE A DRAFT REPORT TO THE COMMISSION. THE COMMISSION SHALL
11 PROVIDE A RESPONSE TO THE WORK GROUP'S DRAFT REPORT WITH ANY
12 COMMENTS BY OCTOBER 15, 2023. IF IT IS DETERMINED FROM THE WORK
13 GROUP'S RECOMMENDATIONS THAT A PILOT PROGRAM MAY BE
14 IMPLEMENTED, THE WORK GROUP, IN CONSULTATION WITH THE
15 COMMISSION, SHALL CREATE A FINAL REPORT THAT INCORPORATES THE
16 COMMISSION'S COMMENTS TO THE DRAFT REPORT. THE DIRECTOR SHALL
17 POST THE FINAL REPORT ON THE COMMISSION'S WEBSITE BY DECEMBER 1,
18 2023.

19 (c) NO LATER THAN FEBRUARY 1, 2024, THE WORK GROUP SHALL
20 PRESENT THE FINAL REPORT TO THE TRANSPORTATION AND ENERGY
21 COMMITTEE OF THE SENATE AND THE ENERGY AND ENVIRONMENT
22 COMMITTEE OF THE HOUSE OF REPRESENTATIVES, OR ANY SUCCESSOR
23 COMMITTEES.

24 (9) THIS SECTION IS REPEALED, EFFECTIVE SEPTEMBER 1, 2024.

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