

First Regular Session
Seventy-fourth General Assembly
STATE OF COLORADO

INTRODUCED

LLS NO. 23-0514.01 Jennifer Berman x3286

SENATE BILL 23-092

SENATE SPONSORSHIP

Simpson and Hansen,

HOUSE SPONSORSHIP

McCormick and Soper,

Senate Committees

Agriculture & Natural Resources

House Committees

A BILL FOR AN ACT

101 CONCERNING OPPORTUNITIES FOR VOLUNTARY EMISSION REDUCTIONS

102 IN AGRICULTURE.

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>.)

In support of the use of agrivoltaics, which is the integration of solar energy generation facilities with agricultural activities, **section 2** of the bill authorizes the agricultural drought and climate resilience office (office) to award grants for new or ongoing demonstration or research projects that demonstrate or study the use of agrivoltaics. On or before October 1, 2023, the office is required to convene a stakeholder group to

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.

advise on whether the office should impose any operational requirements for agrivoltaic projects that apply for grants.

Section 4 authorizes the Colorado water conservation board (board) to finance a project to study the feasibility of using aquavoltaics, which are solar energy generation facilities placed over, or floating on, irrigation canals or reservoirs.

Section 1 requires the director of the division of parks and wildlife to consult on the impacts on wildlife of:

- Any research projects for which the office awards money to study the use of agrivoltaics; and
- The project that the board finances to study the feasibility of using aquavoltaics in the state.

Section 5 amends the statutory definition of "solar energy facility", used in determining the valuation of public utilities for property tax purposes, to include agrivoltaics and aquavoltaics.

Section 3 requires the commissioner of agriculture or the commissioner's designee (commissioner), in consultation with the Colorado energy office, the air quality control commission, and an institution of higher education with expertise in climate change mitigation, adaptation benefits, and other environmental benefits related to agricultural research, to examine greenhouse gas reduction and carbon sequestration opportunities in the agricultural sector, including the use of dry digesters and the potential for creating and offering a certified greenhouse gas offset program and credit instruments in the agricultural sector.

Section 3 requires the commissioner to submit a progress report on the study to the general assembly on or before October 1, 2024, and a final report, including any recommendations, on or before October 1, 2025.

Section 3 also authorizes the commissioner to adopt rules to implement the recommendations, but requires that any greenhouse gas offset program or other greenhouse gas reduction and carbon sequestration program or mechanism established in rule not mandate participation by agricultural producers.

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

2 **SECTION 1.** In Colorado Revised Statutes, 33-1-110, **add** (9) as
3 follows:

4 **33-1-110. Duties of the director of the division - habitat**
5 **partnership council, program, committee - created - duties.** (9) THE

1 DIRECTOR OR THE DIRECTOR'S DESIGNEE SHALL PROVIDE CONSULTATION
2 REGARDING THE IMPACTS OF THE FOLLOWING RESEARCH PROJECTS ON
3 WILDLIFE:

4 (a) RESEARCH PROJECTS FOR WHICH THE AGRICULTURAL DROUGHT
5 AND CLIMATE RESILIENCE OFFICE AWARDS MONEY TO STUDY THE USE OF
6 AGRIVOLTAICS PURSUANT TO SECTION 35-1-114; AND

7 (b) A FEASIBILITY STUDY THROUGH WHICH THE COLORADO WATER
8 CONSERVATION BOARD, CREATED IN SECTION 37-60-102, STUDIES THE USE
9 OF AQUAVOLTAICS PURSUANT TO SECTION 37-60-115 (12).

10 **SECTION 2.** In Colorado Revised Statutes, 35-1-114, **amend** (2)
11 and (3); and **add** (4) and (5) as follows:

12 **35-1-114. Agricultural drought and climate resilience office -**
13 **creation - grants for agrivoltaic demonstration and research projects**
14 **- rules - definitions. (2) Office created. (a) (I) There is hereby created**
15 **in the department the agricultural drought and climate resilience office.**
16 ~~referred to in this section as the "office".~~ The office may provide
17 voluntary technical assistance, nonregulatory programs, and incentives,
18 INCLUDING GRANTS, that increase the ability to anticipate, prepare for,
19 mitigate, adapt to, and respond to hazardous events, trends, or
20 disturbances related to drought or the climate.

21 (II) IN AWARDING GRANTS IN ACCORDANCE WITH THE
22 COMMISSIONER'S RULES ADOPTED PURSUANT TO SUBSECTION (3) OF THIS
23 SECTION, THE OFFICE SHALL GIVE STRONG CONSIDERATION TO GRANT
24 APPLICATIONS THAT PROPOSE USING GRANT MONEY TO CONDUCT A NEW
25 OR ONGOING DEMONSTRATION OR RESEARCH PROJECT AS A MEANS TO
26 STUDY THE USE OF AGRIVOLTAICS IN THE STATE.

27 (b) The office shall advise the commissioner, the Colorado

1 agricultural value-added development board created in section 35-75-203,
2 other state agencies, and the governor on the impact to agriculture of
3 drought and climate policies and programs.

4 (c) The commissioner shall appoint the head of the office.

5 (3) (a) **Rules.** The commissioner may promulgate rules necessary
6 for the administration of the office's assistance, programs, and incentives,
7 including grants, CONSISTENT WITH THIS SUBSECTION (3). Before
8 promulgating the rules, the commissioner shall convene a stakeholder
9 group, including representatives of organizations whose membership
10 consists of agricultural producers engaged in the production of the top ten
11 agricultural commodities produced in Colorado and members of the state
12 conservation board created in section 35-70-103 (1)(a). The stakeholder
13 group shall advise the commissioner as to the needs of the agriculture
14 industry to respond to and mitigate the impacts of climate change on
15 agricultural production. ~~For the purpose of this section, "bona fide~~
16 ~~agricultural producer" means an agricultural producer that receives a~~
17 ~~majority of the producer's annual income from agriculture, an agricultural~~
18 ~~producer that spends more than one thousand forty hours per year~~
19 ~~engaged in agricultural production, or a Colorado business that processes~~
20 ~~agricultural products.~~

21 (b) **Assistance, programs, and incentives.** (I) Except for a
22 program, ASSISTANCE, INCENTIVE, or support administered by the office
23 to address immediate needs as a result of disaster, including wildfire and
24 drought, or ~~a program~~ that was in existence on January 1, 2021,

25 (a) a program, ASSISTANCE, INCENTIVE, OR SUPPORT administered
26 by the office must be designed to benefit bona fide agricultural producers
27 actively engaged in agriculture AND MAY INCLUDE NEW OR ONGOING

1 DEMONSTRATION OR RESEARCH PROJECTS TO DEMONSTRATE OR STUDY
2 THE USE OF AGRIVOLTAICS TO:

3 (A) HELP PREPARE FOR AND MITIGATE THE IMPACTS THAT CLIMATE
4 CHANGE OR DROUGHT HAVE ON AGRICULTURE;

5 (B) REDUCE ENERGY COSTS IN AGRICULTURE; AND

6 (C) PROVIDE OTHER STATEWIDE ENVIRONMENTAL BENEFITS, AS
7 IDENTIFIED BY THE OFFICE.

8 (II) Grants awarded by the office must pay for implementation of
9 practices to address and mitigate the impacts of climate change or drought
10 ON AGRICULTURE or to provide direct adaptation support for impacted
11 agricultural communities, including mental health resources, conflict
12 resolution assistance, and risk-management guidance. A grant award may
13 pay no more than five percent of administrative expenses incurred by a
14 bona fide agricultural producer to implement the practices.

15 ~~(b)~~ (III) The department shall, at least thirty days before opening
16 the grant application process, make available, on its website, information
17 related to the grant program ~~available to~~ ~~bone~~ BONA fide agricultural
18 producers.

19 ~~(c)~~ (IV) A grant authorized pursuant to this section must receive
20 final approval by the commission before a final award can be issued. ~~and~~

21 ~~(d)~~ (V) The department shall post on its website all applications
22 for grant awards. Within fifteen days after awarding a grant, the
23 department shall post on its website the name of the individual or entity
24 receiving a grant, the amount of the grant awarded, the project or projects
25 to be funded by the grant, and the duration of the grant award.

26 (4) (a) ON OR BEFORE OCTOBER 1, 2023, THE OFFICE SHALL
27 CONVENE A GROUP OF STAKEHOLDERS TO ADVISE ON:

1 (I) WHETHER THE OFFICE SHOULD IMPOSE ANY SIZE, OUTPUT, OR
2 OTHER OPERATIONAL REQUIREMENTS FOR AGRIVOLTAIC PROJECTS THAT
3 APPLY FOR A GRANT UNDER THIS SECTION; AND

4 (II) ANY OTHER MATTER THAT THE OFFICE DEEMS NECESSARY
5 WITH REGARD TO AWARDING GRANTS FOR AGRIVOLTAIC PROJECTS.

6 (b) THE STAKEHOLDER GROUP CONVENED MUST INCLUDE ONE OR
7 MORE REPRESENTATIVES OF EACH OF THE FOLLOWING:

8 (I) AGRICULTURAL PRODUCERS;

9 (II) UTILITIES;

10 (III) MANUFACTURERS OF SOLAR ENERGY GENERATION
11 EQUIPMENT; AND

12 (IV) ENVIRONMENTAL ADVOCACY ORGANIZATIONS IN THE STATE.

13 (5) AS USED IN THIS SECTION, UNLESS THE CONTEXT OTHERWISE
14 REQUIRES:

15 (a) "AGRIVOLTAICS" MEANS ONE OR MORE SOLAR ENERGY
16 GENERATION FACILITIES DIRECTLY INTEGRATED WITH AGRICULTURAL
17 ACTIVITIES, INCLUDING CROP PRODUCTION, GRAZING, ANIMAL
18 HUSBANDRY, APIARIES, COVER CROPPING FOR SOIL HEALTH BENEFITS OR
19 CARBON SEQUESTRATION, OR PRODUCTION OF AGRICULTURAL
20 COMMODITIES FOR SALE IN THE RETAIL OR WHOLESALE MARKET.

21 (b) "BONA FIDE AGRICULTURAL PRODUCER" MEANS:

22 (I) AN AGRICULTURAL PRODUCER THAT:

23 (A) RECEIVES A MAJORITY OF THE PRODUCER'S ANNUAL INCOME
24 FROM AGRICULTURE; OR

25 (B) SPENDS MORE THAN ONE THOUSAND FORTY HOURS PER YEAR
26 ENGAGED IN AGRICULTURAL PRODUCTION; OR

27 (II) A COLORADO BUSINESS THAT PROCESSES AGRICULTURAL

1 PRODUCTS.

2 (c) "OFFICE" MEANS THE AGRICULTURAL DROUGHT AND CLIMATE
3 RESILIENCE OFFICE CREATED IN SUBSECTION (2) OF THIS SECTION.

4 **SECTION 3.** In Colorado Revised Statutes, **add 35-1-119** as
5 follows:

6 **35-1-119. Study of greenhouse gas reduction and carbon**
7 **sequestration opportunities in agriculture and agricultural land**
8 **management - definitions - reporting - rules.** (1) (a) (I) IN
9 ACCORDANCE WITH SUBSECTION (1)(a)(II) OF THIS SECTION, THE
10 COMMISSIONER OR THE COMMISSIONER'S DESIGNEE SHALL CONDUCT A
11 STUDY TO EXAMINE GREENHOUSE GAS REDUCTION AND CARBON
12 SEQUESTRATION OPPORTUNITIES IN THE AGRICULTURAL SECTOR AND IN
13 AGRICULTURAL LAND MANAGEMENT IN THE STATE, INCLUDING:

14 (A) THE USE OF DRY DIGESTERS; AND

15 (B) AN INVESTIGATION INTO THE POTENTIAL FOR CREATING AND
16 OFFERING A CERTIFIED GREENHOUSE GAS OFFSET PROGRAM AND CREDIT
17 INSTRUMENTS TO PROVIDE FUNGIBLE GREENHOUSE GAS OFFSETS FOR
18 AGRICULTURAL PRODUCERS AND IN AGRICULTURAL LAND MANAGEMENT.

19 (II) THE COMMISSIONER OR COMMISSIONER'S DESIGNEE SHALL
20 CONDUCT THE STUDY IN CONSULTATION WITH THE COLORADO ENERGY
21 OFFICE CREATED IN SECTION 24-38.5-101, THE AIR QUALITY CONTROL
22 COMMISSION CREATED IN SECTION 25-7-104 (1), AND AN INSTITUTION OF
23 HIGHER EDUCATION WITH EXPERTISE IN CLIMATE CHANGE MITIGATION,
24 ADAPTATION BENEFITS, AND OTHER ENVIRONMENTAL BENEFITS RELATED
25 TO AGRICULTURAL RESEARCH.

26 (b) (I) ANY CERTIFIED GREENHOUSE GAS OFFSET PROGRAM AND
27 CREDIT INSTRUMENTS OFFERED MUST REFLECT REAL, ADDITIONAL,

1 QUANTIFIABLE, PERMANENT, VERIFIABLE, AND ENFORCEABLE REDUCTIONS
2 IN GREENHOUSE GAS EMISSIONS THAT ARE EQUIVALENT TO THE OFFSETS
3 PROVIDED AND MUST NOT REQUIRE AGRICULTURAL PRODUCERS'
4 PARTICIPATION.

5 (II) GREENHOUSE GAS OFFSETS DEVELOPED FOR AGRICULTURAL
6 PRODUCERS AND IN AGRICULTURAL LAND MANAGEMENT IN ACCORDANCE
7 WITH THIS SECTION MAY BE:

8 (A) INCORPORATED INTO THE AIR QUALITY CONTROL
9 COMMISSION'S RULES, INCLUDING RULES ADOPTED UNDER SECTION
10 25-7-105 (1)(e), AND, SPECIFICALLY, RULES CONCERNING COORDINATION
11 WITH OTHER JURISDICTIONS PURSUANT TO THE AUTHORITY GRANTED IN,
12 AND THE CONSIDERATIONS REQUIRED UNDER, SECTION 25-7-105 (1)(e)(V);
13 AND

14 (B) USED AS COMPLIANCE INSTRUMENTS BY A SOURCE REGULATED
15 UNDER ARTICLE 7 OF TITLE 25, WITH EMISSION REDUCTION OBLIGATIONS
16 THAT ENSURE THAT THE SOURCE'S OVERALL, ABSOLUTE EMISSIONS
17 DECLINE CONSISTENT WITH THE STATEWIDE GREENHOUSE GAS EMISSION
18 REDUCTION GOALS SET FORTH IN SECTION 25-7-102 (2)(g).

19 (c) THE STUDY MUST IDENTIFY POLICY MECHANISMS TO MITIGATE
20 THE IMPACTS THAT THE USE OF GREENHOUSE GAS OFFSETS BY REGULATED
21 SOURCES HAS ON DISPROPORTIONATELY IMPACTED COMMUNITIES.

22 (2) THE COMMISSIONER OR THE COMMISSIONER'S DESIGNEE SHALL
23 SUBMIT TO THE GENERAL ASSEMBLY:

24 (a) A REPORT SUMMARIZING THE PROGRESS ON THE STUDY ON OR
25 BEFORE OCTOBER 1, 2024; AND

26 (b) A FINAL REPORT ON THE STUDY ON OR BEFORE OCTOBER 1,
27 2025. THE FINAL REPORT MUST INCLUDE ANY LEGISLATIVE, REGULATORY,

1 OR OTHER RECOMMENDATIONS FOR DESIGNING AND IMPLEMENTING
2 GREENHOUSE GAS REDUCTION AND CARBON SEQUESTRATION
3 OPPORTUNITIES FOR THE AGRICULTURAL SECTOR AND IN AGRICULTURAL
4 LAND MANAGEMENT IN THE STATE.

5 (3)(a)(I) UPON CONCLUSION OF THE STUDY, WITH REGARD TO ANY
6 RECOMMENDATIONS IN THE STUDY THAT DO NOT REQUIRE LEGISLATIVE
7 CHANGES, THE COMMISSIONER, IN CONSULTATION WITH THE COLORADO
8 ENERGY OFFICE AND THE AIR QUALITY CONTROL COMMISSION, MAY ADOPT
9 RULES TO IMPLEMENT THE RECOMMENDATIONS.

10 (II) ANY RULES ADOPTED PURSUANT TO THIS SUBSECTION (3)(a)
11 MUST NOT MANDATE PARTICIPATION BY AGRICULTURAL PRODUCERS IN
12 ANY GREENHOUSE GAS OFFSET PROGRAM OR ANY OTHER GREENHOUSE GAS
13 REDUCTION AND CARBON SEQUESTRATION PROGRAMS OR MECHANISMS
14 DEVELOPED IN RULE, BUT THE RULES MAY PROVIDE INCENTIVES TO
15 AGRICULTURAL PRODUCERS FOR THEIR VOLUNTARY PARTICIPATION IN ANY
16 PROGRAM OR MECHANISM DEVELOPED IN RULE PURSUANT TO THIS
17 SUBSECTION (3)(a).

18 (b) IF THE COMMISSIONER ADOPTS RULES PURSUANT TO
19 SUBSECTION (3)(a) OF THIS SECTION, THE DEPARTMENT SHALL INCLUDE A
20 SUMMARY OF THE RULES AS PART OF THE DEPARTMENT'S REGULATORY
21 AGENDA THAT IT FILES PURSUANT TO SECTION 2-7-203 (4) AND THAT IS
22 INCLUDED IN THE DEPARTMENT'S "SMART ACT" PRESENTATION THAT
23 IMMEDIATELY FOLLOWS THE ADOPTION OF THE RULES.

24 (4) AS USED IN THIS SECTION, UNLESS THE CONTEXT OTHERWISE
25 REQUIRES:

26 (a) "ANAEROBIC DIGESTER" MEANS A SEALED, OXYGEN-FREE TANK
27 INTO WHICH FEEDSTOCK, SUCH AS FOOD WASTE, ANIMAL MANURE, OR

1 WASTEWATER SLUDGE, IS PLACED FOR ANAEROBIC DIGESTION BY
2 MICROORGANISMS. AN ANAEROBIC DIGESTER CAN BE USED AS A MEANS OF
3 WASTE DISPOSAL OR ENERGY PRODUCTION.

4 (b) "DISPROPORTIONATELY IMPACTED COMMUNITIES" HAS THE
5 MEANING SET FORTH IN SECTION 24-4-109 (2)(b)(II).

6 (c) "DRY DIGESTER" MEANS AN ANAEROBIC DIGESTER THAT
7 PROCESSES FEEDSTOCK WITH A LOW MOISTURE CONTENT.

8 **SECTION 4.** In Colorado Revised Statutes, 37-60-115, **add** (12)
9 as follows:

10 **37-60-115. Water studies - rules - definitions - repeal.**

11 (12)(a) THE BOARD, IN CONSULTATION WITH THE STATE ENGINEER, SHALL
12 CONDUCT A FEASIBILITY STUDY REGARDING THE USE OF AQUAVOLTAICS
13 AS A MEANS OF INCREASING THE BENEFICIAL CONSUMPTIVE USE OF STATE
14 WATERS BY REDUCING EVAPORATION FROM, AND LOWERING
15 TEMPERATURES OF, IRRIGATION CANALS AND RESERVOIRS UPON WHICH
16 AQUAVOLTAIC INFRASTRUCTURE IS PLACED. THE BOARD SHALL CONDUCT
17 THE FEASIBILITY STUDY IN ACCORDANCE WITH THE REQUIREMENTS SET
18 FORTH IN SECTION 37-60-121 (1)(b)(VIII) AND (1)(b)(IX).

19 (b) THE BOARD SHALL MAKE GRANTS ASSOCIATED WITH
20 PREPARING THE FEASIBILITY STUDY FROM MONEY IN THE FEASIBILITY
21 STUDY SMALL GRANT FUND CREATED IN SECTION 37-60-122.7.

22 (c) IN STUDYING THE FEASIBILITY OF USING AQUAVOLTAICS, THE
23 BOARD SHALL ENSURE THAT ANY AQUAVOLTAIC INFRASTRUCTURE USED
24 IN THE STUDY DOES NOT INTERFERE WITH INSTREAM FLOWS, AS DESCRIBED
25 IN SECTION 37-92-102 (3), OR WITH WATER RIGHTS OWNERS' ABILITY TO
26 DIVERT WATER FOR BENEFICIAL USE.

27 (d) AS USED IN THIS SUBSECTION (12), UNLESS THE CONTEXT

1 OTHERWISE REQUIRES:

2 (I) "AQUAVOLTAICS" MEANS ONE OR MORE SOLAR ENERGY
3 GENERATION FACILITIES PLACED OVER, OR FLOATING ON, IRRIGATION
4 CANALS OR RESERVOIRS IN THE STATE.

5 (II) "BENEFICIAL USE" HAS THE MEANING SET FORTH IN SECTION
6 37-92-103 (4).

7 (III) "DIVERT" HAS THE MEANING SET FORTH IN SECTION
8 37-92-103 (7).

9 (IV) "WATER RIGHT" HAS THE MEANING SET FORTH IN SECTION
10 37-92-103 (12).

11 (V) "WATERS OF THE STATE" HAS THE MEANING SET FORTH IN
12 SECTION 37-92-103 (13).

13 **SECTION 5.** In Colorado Revised Statutes, 39-4-101, **amend**
14 (3.5) as follows:

15 **39-4-101. Definitions.** As used in this article 4, unless the context
16 otherwise requires:

17 (3.5) (a) "Solar energy facility" means a new facility first placed
18 in production on or after January 1, 2009, that uses real and personal
19 property, including ~~but not limited to~~ one or more solar energy devices,
20 as defined in section 38-32.5-100.3 (2), leaseholds, and easements, to
21 generate and, EXCEPT AS PROVIDED IN SUBSECTION (3.5)(b) OF THIS
22 SECTION, deliver to the interconnection meter any source of electrical,
23 thermal, or mechanical energy in excess of two megawatts by harnessing
24 the radiant energy of the sun, including any connected device for which
25 the primary purpose is to store energy, and that is not primarily designed
26 to supply electricity for consumption on site.

27 (b) "SOLAR ENERGY FACILITY" INCLUDES FACILITIES FOR

1 AGRIVOLTAICS, AS DEFINED IN SECTION 35-1-114 (4)(a), AND FOR
2 AQUAVOLTAICS, AS DEFINED IN SECTION 37-60-115 (12)(d)(I), THAT
3 DELIVER TO THE INTERCONNECTION METER ELECTRICAL ENERGY IN EXCESS
4 OF FIVE HUNDRED KILOWATTS.

5 **SECTION 6. Act subject to petition - effective date.** This act
6 takes effect at 12:01 a.m. on the day following the expiration of the
7 ninety-day period after final adjournment of the general assembly; except
8 that, if a referendum petition is filed pursuant to section 1 (3) of article V
9 of the state constitution against this act or an item, section, or part of this
10 act within such period, then the act, item, section, or part will not take
11 effect unless approved by the people at the general election to be held in
12 November 2024 and, in such case, will take effect on the date of the
13 official declaration of the vote thereon by the governor.