CHAPTER 218

AGRICULTURE

SENATE BILL 23-092

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AN ACT

CONCERNING OPPORTUNITIES FOR VOLUNTARY EMISSION REDUCTIONS IN AGRICULTURE, AND, IN CONNECTION THEREWITH, MAKING AN APPROPRIATION.

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

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

- **33-1-110.** Duties of the director of the division habitat partnership council, program, committee created duties. (9) The director or the director's designee shall provide consultation regarding the impacts of the following research projects on wildlife:
- (a) Research projects for which the agricultural drought and climate resilience office awards money to study the use of agrivoltaics pursuant to section 35-1-114; and
- (b) A feasibility study through which the Colorado water conservation board, created in section 37-60-102, studies the use of floatovoltaics pursuant to section 37-60-115 (12).
- **SECTION 2.** In Colorado Revised Statutes, 35-1-114, **amend** (1)(c)(II), (2), and (3); and **add** (4) as follows:
- 35-1-114. Agricultural drought and climate resilience office creation grants for agrivoltaic demonstration and research projects rules definitions. (1) Legislative declaration. The general assembly hereby:

Capital letters or bold & italic numbers indicate new material added to existing law; dashes through words or numbers indicate deletions from existing law and such material is not part of the act.

- (c) Declares that:
- (II) The agricultural drought and climate resilience office can best address and mitigate agricultural climate-related issues on a wide scale by providing support to and assisting bona fide agricultural producers in implementing practices that minimize the impacts of climate change.
- (2) **Office created.** (a) (I) There is hereby created in the department the agricultural drought and climate resilience office. referred to in this section as the "office". The office may provide voluntary technical assistance, nonregulatory programs, and incentives, INCLUDING GRANTS, that increase the ability to anticipate, prepare for, mitigate, adapt to, and respond to hazardous events, trends, or disturbances related to drought or the climate.
- (II) In awarding grants in accordance with the commissioner's rules adopted pursuant to subsection (3) of this section, the office shall give strong consideration to grant applications that propose using grant money to conduct a new or ongoing demonstration or research project as a means to study the potential, benefits, and tradeoffs of agrivoltaics in the state. Any agrivoltaic study awarded a grant pursuant to this subsection (2)(a)(II) must include findings on the additional costs, including the additional capital and ongoing maintenance costs, for the use of agrivoltaics as compared to traditional photovoltaics. The additional costs must be quantified on both a dollar-per-megawatt and a dollar-per-megawatt-hour basis.
- (b) The office shall advise the commissioner, the Colorado agricultural value-added development board created in section 35-75-203, other state agencies, and the governor on the impact to agriculture of drought and climate policies and programs.
 - (c) The commissioner shall appoint the head of the office.
- (3) (a) **Rules.** The commissioner may promulgate rules necessary for the administration of the office's assistance, programs, and incentives, including grants, CONSISTENT WITH THIS SUBSECTION (3). Before promulgating the rules, the commissioner shall convene a stakeholder group, including representatives of organizations whose membership consists of agricultural producers engaged in the production of the top ten agricultural commodities produced in Colorado, and members of the state conservation board created in section 35-70-103 (1)(a), AND REPRESENTATIVES OF THE SOLAR ENERGY DEVELOPMENT INDUSTRY. The stakeholder group shall advise the commissioner as to the needs of the agriculture industry to respond to and mitigate the impacts of climate change on agricultural production For the purpose of this section, "bona fide agricultural producer" means an agricultural producer that receives a majority of the producer's annual income from agriculture, an agricultural producer that spends more than one thousand forty hours per year engaged in agricultural production, or a Colorado business that processes agricultural products and solutions from the solar energy development INDUSTRY ON PROVIDING FEASIBLE SOLUTIONS FOR PRODUCING ELECTRICITY ON AGRICULTURAL LANDS WHILE CONTRIBUTING ECOLOGICAL AND AGRICULTURAL BENEFITS.

- (b) **Assistance, programs, and incentives.** (I) Except for a program, ASSISTANCE, INCENTIVE, or support administered by the office to address immediate needs as a result of disaster, including wildfire and drought, or a program that was in existence on January 1, 2021,
- (a) a program, ASSISTANCE, INCENTIVE, OR SUPPORT administered by the office must be designed to benefit bona fide agricultural producers actively engaged in agriculture INCLUDE NEW OR ONGOING DEMONSTRATION OR RESEARCH PROJECTS TO DEMONSTRATE OR STUDY THE USE OF AGRIVOLTAICS TO:
- (A) Help prepare for and mitigate the impacts that climate change or drought have on agriculture;
 - (B) REDUCE ENERGY COSTS IN AGRICULTURE;
 - (C) IMPROVE THE ECONOMIC RESILIENCE OF AGRICULTURAL PRODUCERS;
- (D) MINIMIZE NEGATIVE ENVIRONMENTAL IMPACTS OF PHOTOVOLTAIC ENERGY PRODUCTION FACILITIES ON SOIL HEALTH, NATIVE VEGETATION, STATE AND FEDERAL LISTED SPECIES, WILDLIFE MIGRATION CORRIDORS, AND THE SPECIES, HABITATS, AND ECOSYSTEMS THAT ARE OF THE GREATEST CONSERVATION NEED; AND
- (E) Provide other statewide environmental benefits, as identified by the office.
- (II) Grants awarded by the office must pay for implementation of practices to address and mitigate the impacts of climate change or drought ON AGRICULTURE or to provide direct adaptation support for impacted agricultural communities, including mental health resources, conflict resolution assistance, and risk-management guidance. A grant award may pay no more than five percent of administrative expenses incurred by a bona fide AN agricultural producer to implement the practices.
- (b) (III) The department shall, at least thirty days before opening the grant application process, make available, on its website, information related to the grant program available to bone fide agricultural producers.
- (e) (IV) A grant authorized pursuant to this section must receive final approval by the commission before a final award can be issued. and
- (d) (V) The department shall post on its website all applications for grant awards. Within fifteen days after awarding a grant, the department shall post on its website the name of the individual or entity receiving a grant, the amount of the grant awarded, the project or projects to be funded by the grant, and the duration of the grant award.
 - (4) As used in this section, unless the context otherwise requires:
- (a) "Agrivoltaics" means one or more solar energy generation facilities directly integrated with agricultural activities, including crop production, grazing, animal husbandry, apiaries, cover cropping to

IMPROVE SOIL HEALTH OR INSECT HABITAT BENEFITS OR CARBON SEQUESTRATION, OR PRODUCTION OF AGRICULTURAL COMMODITIES FOR SALE IN THE RETAIL OR WHOLESALE MARKET.

(b) "Office" means the agricultural drought and climate resilience office created in subsection (2) of this section.

SECTION 3. In Colorado Revised Statutes, add 35-1-120 as follows:

- **35-1-120.** Study of greenhouse gas reduction and carbon sequestration opportunities in agriculture and agricultural land management definitions reporting rules. (1) (a) (I) IN ACCORDANCE WITH SUBSECTION (1)(a)(II) OF THIS SECTION, THE COMMISSIONER OR THE COMMISSIONER'S DESIGNEE SHALL CONDUCT A STUDY TO EXAMINE GREENHOUSE GAS REDUCTION AND CARBON SEQUESTRATION OPPORTUNITIES IN THE AGRICULTURAL SECTOR AND IN AGRICULTURAL LAND MANAGEMENT IN THE STATE, INCLUDING:
- (A) SOIL HEALTH MANAGEMENT PRACTICES, INCLUDING COVER CROPPING, MANURE MANAGEMENT, SOIL AMENDMENTS, ROTATIONAL GRAZING, RANGELAND MANAGEMENT, LOW- AND NO-TILL PRACTICES, AND HEDGE GROWS;
 - (B) The use of dry digesters; and
- (C) AN INVESTIGATION INTO THE POTENTIAL FOR CREATING AND OFFERING A CERTIFIED GREENHOUSE GAS OFFSET PROGRAM AND CREDIT INSTRUMENTS TO PROVIDE FUNGIBLE GREENHOUSE GAS OFFSETS FOR AGRICULTURAL PRODUCERS AND IN AGRICULTURAL LAND MANAGEMENT.
- (II) The commissioner or commissioner's designee shall conduct the study in consultation with the Colorado energy office created in section 24-38.5-101, the air quality control commission created in section 25-7-104 (1), the natural and working lands task force convened by the department of natural resources, the Colorado state forest service, and an institution of higher education with expertise in climate change mitigation, adaptation benefits, and other environmental benefits related to agricultural research.
- (b) (I) Any certified greenhouse gas offset program and credit instruments offered must reflect real, additional, quantifiable, permanent, verifiable, and enforceable reductions in greenhouse gas emissions that are equivalent to the offsets provided and must not require agricultural producers' participation.
- (II) Greenhouse gas offsets developed for agricultural producers and in agricultural land management in accordance with this section:
- (A) May be incorporated into the air quality control commission's rules, including rules adopted under section 25-7-105 (1)(e), and, specifically, rules concerning coordination with other jurisdictions pursuant to the authority granted in, and the considerations required under, section 25-7-105 (1)(e)(V);

- (B) May be used as compliance instruments by a source regulated under article 7 of title 25, with emission reduction obligations established by the Air quality control commission that ensure that the annual, overall, absolute emissions from the source, sector, or group of sources decline consistent with the statewide greenhouse gas emission reduction goals set forth in section 25-7-102 (2)(g); except that, if the source is located in a disproportionately impacted community, the commission shall establish by rule an annual, absolute emission reduction obligation specific to the source;
- (C) Must not be available as an instrument for emissions reduction compliance under section 25-7-105 (1)(e)(V) unless the commission has adopted rules establishing an annual, absolute emission reduction obligation for the relevant sector that is consistent with the statewide greenhouse gas emission reduction goals.
- (c) The study must identify policy mechanisms to avoid the impacts that the use of greenhouse gas offsets by regulated sources could have on disproportionately impacted communities.
- (2) The commissioner or the commissioner's designee shall submit to the general assembly:
- (a) A report summarizing the progress on the study on or before October 1, 2024; and
- (b) A final report on the study on or before October 1, 2025. The final report must include any legislative, regulatory, or other recommendations for designing and implementing greenhouse gas reduction and carbon sequestration opportunities for the agricultural sector and in agricultural land management in the state.
- (3) (a) (I) Upon conclusion of the study, with regard to any recommendations in the study that do not require legislative changes, the commissioner, in consultation with the Colorado energy office and the air quality control commission, may adopt rules to implement the recommendations.
- (II) Any rules adopted pursuant to this subsection (3)(a) must not mandate participation by agricultural producers in any greenhouse gas offset program or any other greenhouse gas reduction and carbon sequestration programs or mechanisms developed in rule, but the rules may provide incentives to agricultural producers for their voluntary participation in any program or mechanism developed in rule pursuant to this subsection (3)(a).
- (b) If the commissioner adopts rules pursuant to subsection (3)(a) of this section, the department shall include a summary of the rules as part of the department's regulatory agenda that it files pursuant to section 2-7-203 (4) and that is included in the department's "SMART Act" presentation that immediately follows the adoption of the rules.

- (4) NOTHING IN THIS SECTION REQUIRES THE AIR QUALITY CONTROL COMMISSION TO ADOPT RULES FOR GREENHOUSE GAS EMISSION OFFSETS OR CREDIT MECHANISMS OR TO ACCEPT ANY GREENHOUSE GAS EMISSION OFFSETS OR CREDIT MECHANISMS AS COMPLIANCE INSTRUMENTS FOR EMISSION REDUCTION COMPLIANCE OR VERIFICATION.
 - (5) As used in this section, unless the context otherwise requires:
- (a) "Anaerobic digester" means a sealed, oxygen-free tank into which feedstock, such as food waste, animal manure, or wastewater sludge, is placed for anaerobic digestion by microorganisms. An anaerobic digester can be used as a means of waste disposal or energy production.
- (b) "DISPROPORTIONATELY IMPACTED COMMUNITIES" HAS THE MEANING SET FORTH IN SECTION 24-4-109 (2)(b)(II).
- (c) "Dry digester" means an anaerobic digester that processes feedstock with a low moisture content.

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

- 37-60-115. Water studies rules reports definitions repeal. (12) (a) Study. (I) The board, in consultation with the state engineer, the Colorado energy office, and the institute, shall conduct a study to determine the feasibility of the use of floatovoltaics as a means of increasing the beneficial consumptive use of state waters by reducing evaporation from, and lowering temperatures of, irrigation canals and reservoirs upon which floatovoltaic infrastructure is placed. In studying the feasibility of using floatovoltaics, the board shall ensure that any floatovoltaic infrastructure used in the study does not interfere with instream flows, as described in section 37-92-102 (3), or with water rights owners' ability to divert water for beneficial use.
- (II) The board may contract with the institute, a third party, or both, to design, carry out, and analyze the results of the study required in this subsection (12)(a). If the board deems appropriate, the study must be conducted in consideration of and reliance on relevant studies completed in the state and nationally.
- (b) **Report.** On or before January 1, 2025, the board shall submit a report of the findings and conclusions of the study to the house of representatives agriculture, water, and natural resources committee and the senate agriculture and natural resources committee, or their successor committees.
- (c) As used in this subsection (12), unless the context otherwise requires:
 - (I) "Beneficial use" has the meaning set forth in section 37-92-103 (4).
 - (II) "DIVERT" HAS THE MEANING SET FORTH IN SECTION 37-92-103 (7).

- (III) "Floatovoltaics" means one or more solar energy generation facilities placed over, near, or floating on irrigation canals or reservoirs in the state.
- (IV) "INSTITUTE" MEANS THE COLORADO WATER INSTITUTE CREATED IN SECTION 23-31-801.
 - (V) "Water right" has the meaning set forth in section 37-92-103 (12).
- (VI) "Waters of the state" has the meaning set forth in section 37-92-103 (13).
- **SECTION 5.** In Colorado Revised Statutes, 39-3-122, **add** (3) and (4) as follows:
- **39-3-122.** Agricultural equipment used in production of agricultural products CEA facilities exemption definition. (3) On and after January 1, 2024, but before January 2, 2029, personal property is exempted from the Levy and collection of property tax if the property is machinery or equipment that is part of a solar energy generating system that is used for agrivoltaics, and if the property:
- (a) Incorporates novel designs, technologies, or configurations that significantly expand the potential for agricultural activities, including by:
- (I) ELEVATING THE BOTTOM EDGE HEIGHT OF THE PANELS AT LEAST SIX FEET ABOVE THE GROUND;
- (II) Utilizing translucent panels or panels with tubular or other innovative panel geometry that supports agrivoltaics;
- (III) INCORPORATING ALTERNATIVE SOLAR TRACKING ALGORITHMS THAT ARE TAILORED TO OPTIMIZE VEGETATIVE GROWTH;
- (IV) INCORPORATING EXTENDED ROW OR PANEL SPACING IN A MANNER THAT ENABLES AGRICULTURAL ACTIVITIES;
- (V) INCORPORATING MODIFIED WIRE MANAGEMENT SYSTEMS THAT SUPPORT LIVESTOCK, INCLUDING RAISING, LOWERING, OR BURYING WIRING;
- (VI) Incorporating innovative photovoltaic racking structures, including tensioned wire racking systems, suspension-based systems, or other dynamic photovoltaic racking systems or arrangements;
- (VII) Incorporating agricultural infrastructure that is typically found on a farm or ranch operation, such as agricultural fences, water sources and distribution, water troughs and tanks, corrals, livestock pens, or produce handling equipment; or
 - $(VIII)\ In corporating a \textit{gricultural structures that are typically found}$

ON AN AGRICULTURAL OPERATION, SUCH AS A TRACTOR SHED, A BARN, OR STRUCTURES FOR EQUIPMENT STORAGE, PRODUCE WASHING, STORAGE, PROCESSING, OR CHILLING AND PACKAGING;

- (b) Is constructed in a manner that minimizes soil compaction underneath and in between panels; and
- (c) IS CONSTRUCTED TO INCORPORATE DESIGN STRATEGIES THAT ARE PLANNED WITH THE INTENT TO MINIMIZE THE NEGATIVE ENVIRONMENTAL IMPACT OF PHOTOVOLTAIC ENERGY PRODUCTION FACILITIES ON ECOSYSTEMS, NATIVE VEGETATION, STATE AND FEDERALLY LISTED SPECIES, WILDLIFE MIGRATION CORRIDORS, AND THE SPECIES, HABITATS, AND ECOSYSTEMS OF GREATEST CONSERVATION NEED.
- (4) As used in this section, "agrivoltaics" has the meaning set forth in section 35-1-114 (4)(a).

SECTION 6. In Colorado Revised Statutes, 39-4-101, amend (3.5) as follows:

- **39-4-101. Definitions.** As used in this article 4, unless the context otherwise requires:
- (3.5) (a) "Solar energy facility" means a new facility first placed in production on or after January 1, 2009, that uses real and personal property, including but not limited to one or more solar energy devices, as defined in section 38-32.5-100.3 (2), leaseholds, and easements, to generate and, EXCEPT AS PROVIDED IN SUBSECTION (3.5)(b) OF THIS SECTION, deliver to the interconnection meter any source of electrical, thermal, or mechanical energy in excess of two megawatts by harnessing the radiant energy of the sun, including any connected device for which the primary purpose is to store energy, and that is not primarily designed to supply electricity for consumption on site.
- (b) "Solar energy facility" includes facilities for agrivoltaics, as defined in section 35-1-114 (4)(a), and for floatovoltaics, as defined in section 37-60-115 (12)(c)(III).
- **SECTION 7. Appropriation.** (1) For the 2023-24 state fiscal year, \$611,870 General Fund is appropriated to the department of agriculture for use by the commissioner's office and administrative services. To implement this act, the office may use this appropriation as follows:
- (a) \$24,370 for personal services, which amount is based on an assumption that the office will require an additional 0.3 FTE;
 - (b) \$87,500 for operating expenses; and
 - (c) \$500,000 for agrivoltaics grants.
- **SECTION 8.** Act subject to petition effective date. This act takes effect at 12:01 a.m. on the day following the expiration of the ninety-day period after final adjournment of the general assembly; except that, if a referendum petition is filed

pursuant to section 1 (3) of article V of the state constitution against this act or an item, section, or part of this act within such period, then the act, item, section, or part will not take effect unless approved by the people at the general election to be held in November 2024 and, in such case, will take effect on the date of the official declaration of the vote thereon by the governor.

Approved: May 18, 2023