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## A BILL FOR AN ACT

RELATING TO SOLAR ENERGY.

**BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:**

1           SECTION 1. The legislature finds that increasing local  
2 renewable energy production can greatly benefit Hawaii's  
3 economy, energy sustainability, and the environment, while  
4 supporting local agriculture and improving food security.

5           The legislature finds that Hawaii is dangerously dependent  
6 on imported fossil fuel, which currently supplies more than  
7 ninety per cent of the State's energy. In 2012, Hawaii imported  
8 approximately forty-five million barrels of petroleum fuels,  
9 spending approximately \$5,000,000,000 or seven per cent of the  
10 State's gross domestic product. Having previously established a  
11 renewable portfolio standard of forty per cent renewable energy  
12 by the year 2030, the legislature finds that while some progress  
13 has been made, significantly more renewable energy capacity must  
14 be brought online to achieve that goal.

15           The legislature further finds that utility scale solar  
16 energy facilities can generate clean energy at significantly  
17 lower cost and with less environmental impact than conventional  
18 generation. As an example, a one hundred megawatt solar energy



1 facility could save residents \$300,000,000 in electricity costs  
2 over twenty years compared to the utility's current avoided  
3 cost, while also eliminating the need to import and burn three  
4 hundred million gallons of petroleum and the consequent emission  
5 of 3,400,000 tons of carbon dioxide into the atmosphere.

6 The legislature finds that the productive use of  
7 agricultural land is important for local food production and  
8 that utility scale energy projects on agricultural land can  
9 enhance a property's agricultural productivity. Energy  
10 generation can improve the viability of land for agriculture by  
11 providing infrastructure and subsidizing land costs for  
12 complementary agricultural uses. Wind energy facilities are  
13 permitted within agricultural districts with soil classified by  
14 the land study bureau's detailed land classification as overall  
15 (master) productivity rating class A, B, C, D, or E, and  
16 existing wind projects have supported concurrent agricultural  
17 uses such as grazing of livestock.

18 The legislature previously found that allowing solar energy  
19 facilities within the agricultural district furthers and is  
20 consistent with the purposes, standards, and criteria of uses  
21 within agricultural lands, and that renewable energy facilities



1 increase both the State's energy self-sufficiency and food  
2 security.

3 The purpose of this Act is to enable the complementary uses  
4 of utility scale solar energy generation and local food  
5 production on agricultural land with soil classified by the land  
6 study bureau's detailed land classification as overall (master)  
7 productivity rating class B or C.

8 SECTION 2. Section 205-2, Hawaii Revised Statutes, is  
9 amended by amending subsection (d) to read as follows:

10 "(d) Agricultural districts shall include:

11 (1) Activities or uses as characterized by the cultivation  
12 of crops, crops for bioenergy, orchards, forage, and  
13 forestry;

14 (2) Farming activities or uses related to animal husbandry  
15 and game and fish propagation;

16 (3) Aquaculture, which means the production of aquatic  
17 plant and animal life within ponds and other bodies of  
18 water;

19 (4) Wind generated energy production for public, private,  
20 and commercial use;



- 1 (5) Biofuel production, as described in section
- 2 205-4.5(a)(16), for public, private, and commercial
- 3 use;
- 4 (6) Solar energy facilities; provided that:
- 5 (A) This paragraph shall apply only to land with soil
- 6 classified by the land study bureau's detailed
- 7 land classification as overall (master)
- 8 productivity rating class B, C, D, or E; and
- 9 (B) Solar energy facilities placed within land with
- 10 soil classified as overall productivity rating
- 11 class B or C shall not occupy more than ten per
- 12 cent of the acreage of the parcel, or twenty
- 13 acres of land, whichever is lesser[+], unless the
- 14 area occupied by the solar energy facilities is
- 15 also devoted to agricultural activities; provided
- 16 further that the solar energy facilities shall be
- 17 decommissioned and removed within twelve months
- 18 of the conclusion of operation; and
- 19 (C) For the purposes of this paragraph, "agricultural
- 20 activities" means the activities described in
- 21 paragraphs (1) to (3);



- 1           (7) Bona fide agricultural services and uses that support  
2           the agricultural activities of the fee or leasehold  
3           owner of the property and accessory to any of the  
4           above activities, regardless of whether conducted on  
5           the same premises as the agricultural activities to  
6           which they are accessory, including farm dwellings as  
7           defined in section 205-4.5(a)(4), employee housing,  
8           farm buildings, mills, storage facilities, processing  
9           facilities, photovoltaic, biogas, and other small-  
10          scale renewable energy systems producing energy solely  
11          for use in the agricultural activities of the fee or  
12          leasehold owner of the property, agricultural-energy  
13          facilities as defined in section 205-4.5(a)(17),  
14          vehicle and equipment storage areas, and plantation  
15          community subdivisions as defined in section  
16          205-4.5(a)(12);
- 17          (8) Wind machines and wind farms;
- 18          (9) Small-scale meteorological, air quality, noise, and  
19          other scientific and environmental data collection and  
20          monitoring facilities occupying less than one-half  
21          acre of land; provided that these facilities shall not



1 be used as or equipped for use as living quarters or  
2 dwellings;

3 (10) Agricultural parks;

4 (11) Agricultural tourism conducted on a working farm, or a  
5 farming operation as defined in section 165-2, for the  
6 enjoyment, education, or involvement of visitors;  
7 provided that the agricultural tourism activity is  
8 accessory and secondary to the principal agricultural  
9 use and does not interfere with surrounding farm  
10 operations; and provided further that this paragraph  
11 shall apply only to a county that has adopted  
12 ordinances regulating agricultural tourism under  
13 section 205-5;

14 (12) Agricultural tourism activities, including overnight  
15 accommodations of twenty-one days or less, for any one  
16 stay within a county; provided that this paragraph  
17 shall apply only to a county that includes at least  
18 three islands and has adopted ordinances regulating  
19 agricultural tourism activities pursuant to section  
20 205-5; provided further that the agricultural tourism  
21 activities coexist with a bona fide agricultural  
22 activity. For the purposes of this paragraph, "bona



1           fide agricultural activity" means a farming operation  
2           as defined in section 165-2;

3           (13) Open area recreational facilities;

4    [+] (14) [+] Geothermal resources exploration and geothermal  
5           resources development, as defined under section 182-1;  
6           and

7    [+] (15) [+] Agricultural-based commercial operations, including:

8           (A) A roadside stand that is not an enclosed  
9           structure, owned and operated by a producer for  
10          the display and sale of agricultural products  
11          grown in Hawaii and value-added products that  
12          were produced using agricultural products grown  
13          in Hawaii;

14          (B) Retail activities in an enclosed structure owned  
15          and operated by a producer for the display and  
16          sale of agricultural products grown in Hawaii,  
17          value-added products that were produced using  
18          agricultural products grown in Hawaii, logo items  
19          related to the producer's agricultural  
20          operations, and other food items; and

21          (C) A retail food establishment owned and operated by  
22          a producer and permitted under [~~title 11,~~]



1 chapter 12 of the rules of the department of  
2 health that prepares and serves food at retail  
3 using products grown in Hawaii and value-added  
4 products that were produced using agricultural  
5 products grown in Hawaii.

6 The owner of an agricultural-based commercial  
7 operation shall certify, upon request of an officer or  
8 agent charged with enforcement of this chapter under  
9 section 205-12, that the agricultural products  
10 displayed or sold by the operation meet the  
11 requirements of this paragraph.

12 Agricultural districts shall not include golf courses and golf  
13 driving ranges, except as provided in section 205-4.5(d).

14 Agricultural districts include areas that are not used for, or  
15 that are not suited to, agricultural and ancillary activities by  
16 reason of topography, soils, and other related characteristics."

17 SECTION 3. Section 205-4.5, Hawaii Revised Statutes, is  
18 amended by amending subsection (a) to read as follows:

19 "(a) Within the agricultural district, all lands with soil  
20 classified by the land study bureau's detailed land  
21 classification as overall (master) productivity rating class A  
22 or B shall be restricted to the following permitted uses:





- 1           (1) Cultivation of crops, including crops for bioenergy,  
2                   flowers, vegetables, foliage, fruits, forage, and  
3                   timber;
- 4           (2) Game and fish propagation;
- 5           (3) Raising of livestock, including poultry, bees, fish,  
6                   or other animal or aquatic life that are propagated  
7                   for economic or personal use;
- 8           (4) Farm dwellings, employee housing, farm buildings, or  
9                   activities or uses related to farming and animal  
10                  husbandry. "Farm dwelling", as used in this  
11                  paragraph, means a single-family dwelling located on  
12                  and used in connection with a farm, including clusters  
13                  of single-family farm dwellings permitted within  
14                  agricultural parks developed by the State, or where  
15                  agricultural activity provides income to the family  
16                  occupying the dwelling;
- 17          (5) Public institutions and buildings that are necessary  
18                  for agricultural practices;
- 19          (6) Public and private open area types of recreational  
20                  uses, including day camps, picnic grounds, parks, and  
21                  riding stables, but not including dragstrips,



- 1 airports, drive-in theaters, golf courses, golf  
2 driving ranges, country clubs, and overnight camps;
- 3 (7) Public, private, and quasi-public utility lines and  
4 roadways, transformer stations, communications  
5 equipment buildings, solid waste transfer stations,  
6 major water storage tanks, and appurtenant small  
7 buildings such as booster pumping stations, but not  
8 including offices or yards for equipment, material,  
9 vehicle storage, repair or maintenance, treatment  
10 plants, corporation yards, or other similar  
11 structures;
- 12 (8) Retention, restoration, rehabilitation, or improvement  
13 of buildings or sites of historic or scenic interest;
- 14 (9) Agricultural-based commercial operations as described  
15 in section [†]205-2(d)(15)[†];
- 16 (10) Buildings and uses, including mills, storage, and  
17 processing facilities, maintenance facilities,  
18 photovoltaic, biogas, and other small-scale renewable  
19 energy systems producing energy solely for use in the  
20 agricultural activities of the fee or leasehold owner  
21 of the property, and vehicle and equipment storage  
22 areas that are normally considered directly accessory



1 to the above-mentioned uses and are permitted under  
2 section 205-2(d);

3 (11) Agricultural parks;

4 (12) Plantation community subdivisions, which as used in  
5 this chapter means an established subdivision or  
6 cluster of employee housing, community buildings, and  
7 agricultural support buildings on land currently or  
8 formerly owned, leased, or operated by a sugar or  
9 pineapple plantation; provided that the existing  
10 structures may be used or rehabilitated for use, and  
11 new employee housing and agricultural support  
12 buildings may be allowed on land within the  
13 subdivision as follows:

14 (A) The employee housing is occupied by employees or  
15 former employees of the plantation who have a  
16 property interest in the land;

17 (B) The employee housing units not owned by their  
18 occupants shall be rented or leased at affordable  
19 rates for agricultural workers; or

20 (C) The agricultural support buildings shall be  
21 rented or leased to agricultural business  
22 operators or agricultural support services;



- 1           (13) Agricultural tourism conducted on a working farm, or a  
2           farming operation as defined in section 165-2, for the  
3           enjoyment, education, or involvement of visitors;  
4           provided that the agricultural tourism activity is  
5           accessory and secondary to the principal agricultural  
6           use and does not interfere with surrounding farm  
7           operations; and provided further that this paragraph  
8           shall apply only to a county that has adopted  
9           ordinances regulating agricultural tourism under  
10          section 205-5;
- 11          (14) Agricultural tourism activities, including overnight  
12          accommodations of twenty-one days or less, for any one  
13          stay within a county; provided that this paragraph  
14          shall apply only to a county that includes at least  
15          three islands and has adopted ordinances regulating  
16          agricultural tourism activities pursuant to section  
17          205-5; provided further that the agricultural tourism  
18          activities coexist with a bona fide agricultural  
19          activity. For the purposes of this paragraph, "bona  
20          fide agricultural activity" means a farming operation  
21          as defined in section 165-2;



1 (15) Wind energy facilities, including the appurtenances  
2 associated with the production and transmission of  
3 wind generated energy; provided that the wind energy  
4 facilities and appurtenances are compatible with  
5 agriculture uses and cause minimal adverse impact on  
6 agricultural land;

7 (16) Biofuel processing facilities, including the  
8 appurtenances associated with the production and  
9 refining of biofuels that is normally considered  
10 directly accessory and secondary to the growing of the  
11 energy feedstock; provided that biofuel processing  
12 facilities and appurtenances do not adversely impact  
13 agricultural land and other agricultural uses in the  
14 vicinity.

15 For the purposes of this paragraph:

16 "Appurtenances" means operational infrastructure  
17 of the appropriate type and scale for economic  
18 commercial storage and distribution, and other similar  
19 handling of feedstock, fuels, and other products of  
20 biofuel processing facilities.

21 "Biofuel processing facility" means a facility  
22 that produces liquid or gaseous fuels from organic



1 sources such as biomass crops, agricultural residues,  
2 and oil crops, including palm, canola, soybean, and  
3 waste cooking oils; grease; food wastes; and animal  
4 residues and wastes that can be used to generate  
5 energy;

6 (17) Agricultural-energy facilities, including  
7 appurtenances necessary for an agricultural-energy  
8 enterprise; provided that the primary activity of the  
9 agricultural-energy enterprise is agricultural  
10 activity. To be considered the primary activity of an  
11 agricultural-energy enterprise, the total acreage  
12 devoted to agricultural activity shall be not less  
13 than ninety per cent of the total acreage of the  
14 agricultural-energy enterprise. The agricultural-  
15 energy facility shall be limited to lands owned,  
16 leased, licensed, or operated by the entity conducting  
17 the agricultural activity.

18 As used in this paragraph:

19 "Agricultural activity" means any activity  
20 described in paragraphs (1) to (3) of this subsection.

21 "Agricultural-energy enterprise" means an  
22 enterprise that integrally incorporates an



1 agricultural activity with an agricultural-energy  
2 facility.

3 "Agricultural-energy facility" means a facility  
4 that generates, stores, or distributes renewable  
5 energy as defined in section 269-91 or renewable fuel  
6 including electrical or thermal energy or liquid or  
7 gaseous fuels from products of agricultural activities  
8 from agricultural lands located in the State.

9 "Appurtenances" means operational infrastructure  
10 of the appropriate type and scale for the economic  
11 commercial generation, storage, distribution, and  
12 other similar handling of energy, including equipment,  
13 feedstock, fuels, and other products of agricultural-  
14 energy facilities;

15 (18) Construction and operation of wireless communication  
16 antennas; provided that, for the purposes of this  
17 paragraph, "wireless communication antenna" means  
18 communications equipment that is either freestanding  
19 or placed upon or attached to an already existing  
20 structure and that transmits and receives  
21 electromagnetic radio signals used in the provision of  
22 all types of wireless communications services;



1 provided further that nothing in this paragraph shall  
2 be construed to permit the construction of any new  
3 structure that is not deemed a permitted use under  
4 this subsection;

5 (19) Agricultural education programs conducted on a farming  
6 operation as defined in section 165-2, for the  
7 education and participation of the general public;  
8 provided that the agricultural education programs are  
9 accessory and secondary to the principal agricultural  
10 use of the parcels or lots on which the agricultural  
11 education programs are to occur and do not interfere  
12 with surrounding farm operations. For the purposes of  
13 this section, "agricultural education programs" means  
14 activities or events designed to promote knowledge and  
15 understanding of agricultural activities and practices  
16 conducted on a farming operation as defined in section  
17 165-2;

18 (20) Solar energy facilities that [~~do not occupy more than~~  
19 ~~ten per cent of the acreage of the parcel, or twenty~~  
20 ~~acres of land, whichever is lesser,] provide an area  
21 of land for agricultural food production that is equal  
22 to or greater than the area occupied by the solar~~





1 energy equipment, which equipment shall be  
 2 decommissioned and removed within twelve months of the  
 3 conclusion of the operation; provided that this use  
 4 shall not be permitted on lands with soil classified  
 5 by the land study bureau's detailed land  
 6 classification as overall (master) productivity rating  
 7 class A; or

8 [+](21)[+]Geothermal resources exploration and geothermal  
 9 resources development, as defined under section  
 10 182-1."

11 SECTION 4. Statutory material to be repealed is bracketed  
 12 and stricken. New statutory material is underscored.

13 SECTION 5. This Act shall take effect upon its approval.  
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# H.B. NO. 2203

**Report Title:**

Agricultural Lands; Solar Energy

**Description:**

Allows solar energy facilities to be placed within agricultural lands with soil classified as overall productivity rating class B or C if the area occupied by the solar energy facilities is also devoted to agricultural activities and requires that the solar energy facilities be decommissioned and removed within twelve months of the conclusion of operation.

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