A New Crop for Agricultural Land: The Renewable Energy Mandate and Its Potential to Turn Farm Lands into Energy Fields

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I. INTRODUCTION

A. The Renewable Energy Mandate

In April 2011, Governor Jerry Brown signed the most aggressive energy mandate of any U.S. state, requiring that by 2020, thirty-three percent of all energy sold in California come from a renewable source.[1] Governor Brown asserted that the energy mandate, officially known as the California Renewable Energy Resources Act,[2] protects our economy, security, and climate, and that it is time for Californians to "be bold."[3] The Renewable Energy Mandate is an increase from earlier legislation, which required that only twenty percent of energy sold by public utility companies and other energy providers come from renewable sources by 2020.[4] The need for increased development of renewable energy[5] sources is not at question here. The American appetite for energy seems insatiable as Americans consume over twenty percent of the world's energy, while making up only five percent of the world population.[6] Furthermore, when

1. Adam Weintraub, *California Renewable Energy: Brown to Sign 'Most Aggressive' Mandate in the U.S.*, HUNTINGTON POST (Apr. 12, 2011), http://www.huffingtonpost.com/2011/04/12/california-renewable-energy_n_848083.html (on file with the *McGeorge Law Review*). The energy mandate is a codification of a 2008 Executive Order issued by Governor Arnold Schwarzenegger after he vetoed a bill that would have required such measures. *Id.*

2. 2011 Cal. Stat. ch. 1, § 1.

3. Weintraub, *supra* note 1.

4. *Id.*

5. The term "renewable energy" has been defined as "[a]ny energy resource that is naturally regenerated over a short time scale and derived directly from the sun (such as thermal, photochemical, and photoelectric), indirectly from the sun (such as wind, hydropower, and photosynthetic energy stored in biomass), or from other natural movements and mechanisms of the environment (such as geothermal and tidal energy)." *Definition of Renewable Energy*, TREIA, http://www.treia.org/renewable-energy-defined (last visited Nov. 11, 2011) (on file with the *McGeorge Law Review*).

6. *Population and Energy Consumption*, WORLD POPULATION BALANCE, http://www.worldpopulationbalance.org/population_energy (last visited Oct. 22, 2011) (on file with the *McGeorge Law Review*).

over eighty-five percent of the U.S. energy supply comes from fossil fuel[7] sources, both the environment and human health suffer.[8] Therefore, the controversy concerning the Renewable Energy Mandate is not about whether the Mandate is necessary—clearly, it is. The controversy arises in determining *where* to develop such resources, as the land requirement necessary for such development is staggering.[9] One of the areas the government has decided to use for renewable energy development is "marginally productive" agricultural lands enrolled in Williamson Act contracts.[10] Under the recently enacted Chapter 596, landowners with land enrolled in the Williamson Act may immediately withdraw those lands from contract and reenroll them in a solar easement contract[11] if the land meets the "limited agriculture[al] value" requirements[12] such as "severely adverse soil conditions" or "significantly reduced agricultural productivity."[13]

B. Agricultural Land Endangered

Agricultural land is an appealing option for many energy companies that are deciding where to build renewable energy facilities.[14] Energy companies have proposed such a vast quantity of solar easements on agricultural land, that John Gamper, a representative of the California Farm Bureau, stated, "it's impossible to track them."[15] Thus, the Renewable Energy Mandate may be a serious threat

7. The category of "fossil fuels" includes coal, oil, and natural gas. *Fossil Fuel and Energy Use*, SUSTAINABLE TABLE, http://www.sustainabletable.org/issues/energy/ (last visited Nov. 11, 2011) (on file with the *McGeorge Law Review*).

8. *Id.* The harmful effects of fossil fuels are created when the fuels are burned and release toxic chemicals into the air, such as carbon dioxide, sulfur oxide, and nitrous oxide, which lead to global warming, acid rain, and smog. *Id.*

9. *See* Robert Bryce, *The Gas Is Greener*, N.Y. TIMES, June 8, 2011, at A23, *available at* http://www.nytimes.com/2011/06/08/opinion/08bryce.html (on file with the *McGeorge Law Review*) (calculating the land requirement necessary for meeting the California Energy Mandate to equal the size of about seventy Manhattans).

10. *See* ASSEMBLY COMMITTEE ON NATURAL RESOURCES, COMMITTEE ANALYSIS OF SB 618, at 1, 3 (Cal. Sept. 9, 2011) (explaining how SB 618 allows a landowner to rescind a Williamson Act contract in order to "enter into a solar-use easement that restricts the land to photovoltaic (PV) solar facilities").

11. The term "solar easement" or "solar-use easement" is used in Chapter 596 to describe land taken out of a Williamson Act contract but which the city or county maintains a right of interest in for development into solar fields. CAL. GOV'T CODE § 51190(c) (West 2012). As used in this Comment, the term should be understood to mean any substantial tract of land which has turned from an agricultural use into a large-scale solar project, sometime known as a "solar farm."

12. ASSEMBLY COMMITTEE ON NATURAL RESOURCES, COMMITTEE ANALYSIS OF SB 618, at 1 (Cal. Sept. 9, 2011); *see also* Sara Arfmann, *Chapter 596: Solar-Use Easements—Let the Sunshine In*, 43 MCGEORGE L. REV. 683 (2012) (providing an overview of the legislation).

13. CAL. GOV'T CODE § 51191(a) (West 2012).

14. *See* Christine Souza, *Energy Mandates Touch Off a Rush for Open Farmland*, AGALERT (Sep. 14, 2011), *available at* http://www.agalert.com/story/?id=2510 (on file with the *McGeorge Law Review*) ("[D]evelopers increasingly look at productive farmland as sites for large-scale solar installations.").

15. FARMLAND PRESERVATION REP., SOLAR POWER: CA WILLIAMSON ACT UNDER SIEGE, at 1–2 (July 2010) [hereinafter SOLAR POWER: CA WILLIAMSON ACT UNDER SIEGE] (on file with the *McGeorge Law*

to already diminishing agricultural land. California farmland has been decreasing at a rate of 40,000 acres per year due to urban development.[16] Even without solar development, current trends are expected to reduce agricultural farmland in California by fifty-three percent by the year 2050.[17] With California's agriculture industry annually generating over 37.5 billion dollars in revenue,[18] the loss of agricultural land is a threat to California's economy and food supply. Loss of agricultural land in California will undoubtedly affect the entire United States as California ranks first among all states in total agricultural production and exports.[19] In 1965, the California Legislature enacted the California Land Conservation Act, commonly known as the Williamson Act, which set as its main goal the protection of California's agricultural land.[20] Although the Act protects over 16.5 million acres of agricultural land[21] and promotes restraint of urban development, current legislation and the Renewable Energy Mandate

Review).

16. EDWARD THOMPSON, JR., CALIFORNIA AGRICULTURAL LAND LOSS & CONSERVATION: THE BASIC FACTS, AMERICAN FARMLAND TRUST, at 1 (July 2009) (on file with the *McGeorge Law Review*).

17. *Id.*

18. USDA, NATIONAL AGRICULTURE STATISTICS SERVICE, CALIFORNIA AGRICULTURE STATISTICS, 2010 CROP YEAR, at 1 (Oct. 28, 2011) [hereinafter NATIONAL AGRICULTURE STATISTICS SERVICE] (on file with the *McGeorge Law Review*).

19. *California Agriculture*, STUFFABOUTSTATES.COM, http://www.stuffaboutstates.com/california/agriculture.htm (last updated Jan. 5, 2011) (on file with the *McGeorge Law Review*). California:

> Ranks first in total agricultural production.
> Ranks first in total crops production.
> Ranks second in total livestock & livestock product production.
> Ranks first in production of almonds (100% of U.S. production).
> Ranks first in production of avocados (96% of U.S. production).
> Ranks first in production of broccoli (92% of U.S. production).
> Ranks first in production of celery (93% of U.S. production).
> Ranks first in production of dairy products (20% of U.S. production).
> Ranks first in production of grapes (91% of U.S. production).
> Ranks first in production of greenhouse/nursery (21% of U.S. production).
> Ranks first in production of hay (14% of U.S. production).
> Ranks first in production of lemons (89% of U.S. production).
> Ranks first in production of lettuce (71% of U.S. production).
> Ranks first in production of onions (31% of U.S. production).
> Ranks first in production of peaches (54% of U.S. production).
> Ranks first in production of pistachio nuts (100% of U.S. production).
> Ranks first in production of plums (97% of U.S. production).
> Ranks first in production of strawberries (83% of U.S. production).
> Ranks first in production of tomatoes (53% of U.S. production).
> Ranks first in production of walnuts (100% of U.S. production).

Id.

20. CALIFORNIA DEPARTMENT OF CONSERVATION, DIVISION OF LAND RESOURCES PROTECTION, SOLAR POWER AND THE WILLIAMSON ACT, at 1 (revised March 11, 2011) [hereinafter SOLAR POWER AND THE WILLIAMSON ACT] (on file with the *McGeorge Law Review*).

21. THOMPSON, *supra* note 16.

conflict with the Act's protectionist ideals. The new movement threatens the security of California's food supply by removing agricultural land, possibly even prime agricultural land,[22] from production.[23]

C. Comment Overview

Converting agricultural land to solar easements is unnecessary to meet the goals of the Renewable Energy Mandate because other viable locations, such as rooftops, are readily available. In addition, the Mandate conflicts with California's goal of preserving these agricultural lands for the benefit of future generations. This Comment argues that California courts should narrowly interpret the meaning of "severely adverse soil conditions" and "significantly reduced agricultural productivity" as used in Chapter 596.[24] Additionally, this Comment argues that the California Legislature should modify the Renewable Energy Mandate to prohibit industrial-scale solar development on agricultural lands designated as "prime farmland,"[25] "land of statewide importance,"[26] or "unique farmland."[27]

Before getting to the heart of the discussion, it is helpful to understand the history and struggle of agricultural land protection in California—a struggle well illustrated by looking at the purpose and workings of the Williamson Act.

22. Although prime agricultural land is protected under Chapter 596, this only encompasses land that was enrolled in a Williamson Act contract. Prime agricultural land not enrolled under the Williamson Act receives no such protection, and even prime land enrolled under the Williamson Act could potentially be removed from contract by vote of the city council and used for solar development. *See infra* note 58 and accompanying text; *see also* discussion *infra* Part IV.B.2.

23. *See* Souza, *supra* note 14 (discussing how in Fresno County, ninety acres of prime farmland were recently removed from a Williamson Act contract).

24. CAL. GOV'T CODE § 51191 (West 2012). This Comment discusses Chapter 596 in more depth *infra* Part II.C.

25. "Prime Farmland is land which has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods. . . . It does not include publicly owned lands for which there is an adopted policy preventing agricultural use." IMPORTANT FARMLAND MAPPING CATEGORIES AND SOIL TAXONOMY TERMS, *available at* http://www.consrv.ca.gov/dlrp/fmmp/Documents/soil_criteria.pdf (last visited Apr. 20, 2013) (on file with the *McGeorge Law Review*).

26. "Farmland of Statewide Importance is land other than Prime Farmland which has a good combination of physical and chemical characteristics for the production of crops. It must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use." *Id.*

27. Unique Farmland is land which does not meet the criteria for Prime Farmland or Farmland of Statewide Importance, that has been used for the production of specific high economic value crops at some time during the two update cycles prior to the mapping date. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality and/or high yields of a specific crop when treated and managed according to current farming methods. Examples of such crops may include oranges, olives, avocados, rice, grapes, and cut flowers. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use. *Id.*

Therefore, Part II of this Comment offers an in-depth look at the Williamson Act and how the ambiguities within the Act led to the passage of Chapter 596. Included in this discussion is the interplay between the Williamson Act and Chapter 596.

Part III discusses why building solar easements[28] on agricultural land could create more negative environmental impacts as opposed to placing the solar panels elsewhere. Part III also discusses why it is both unnecessary and illogical to use agricultural land to develop solar easements. Finally, Part IV of this Comment addresses how this problem can be minimized; first by advocating that courts narrowly interpret the terms "severely adverse soil conditions" and "significantly reduced agricultural productivity" as used in Chapter 596; and second, by advocating that the California Legislature revise the Renewable Energy Mandate to restrict development on "prime agricultural land," "land of statewide importance," and "unique farmland."

II. THE WILLIAMSON ACT AND CHAPTER 596

Part A of this Section lays out the development of the Williamson Act including the legislative intent in passing such legislation. Part A then delves into the intricacies of how the Williamson Act works and how it has been modified over time. Part B explains how Williamson Act land became a prime target for large-scale solar developers because of the physical characteristics of the land—flat and open to sunlight—and how landowners and city councils have since been using various methods to pull Williamson Act land from these contracts for solar development, eventually leading to the passage of Chapter 596. Finally, Part C discusses how Chapter 596 modifies the Williamson Act and explains how these two pieces of legislation interact.

28. Although the renewable energy mandate seeks development of many forms of renewable energy such as wind power, hydroelectric power, or thermal power, solar development will be the sole focus of this Comment piece as it poses the largest threat to agricultural lands due to its land requirement needs and emergence as the fastest growing form of renewable energy. *Types of Renewable Energy—Major,Minor* [sic] *Types of Alternative Energy and Quasi Clean Energy*, GREEN WORLD INVESTOR (Apr. 12, 2011) http://www.greenworldinvestor.com/2011/04/12/types-of-renewable-energy-majorminor-types-of-alternative-energy-and-quasi-clean-energy/ (on file with the *McGeorge Law Review*). Additionally, because Chapter 596 addresses only solar development on Williamson Act lands, the implementation of solar easements on agricultural lands is imminent. *See* ASSEMBLY COMMITTEE ON NATURAL RESOURCES, COMMITTEE ANALYSIS OF SB 618 (Cal. Sept. 9, 2011) (discussing land removal from a Williamson Act contract only for enrollment in a solar easement).

A. How the Williamson Act Works

In enacting the Williamson Act, the California Legislature included legislative findings, which state, in part,

> That the preservation of a maximum amount of the limited supply of agricultural land is necessary to the conservation of the state's economic resources, and is necessary not only to the maintenance of the agricultural economy of the state, but also for the assurance of adequate, healthful and nutritious food for future residents of this state and nation.[29]

To promote this goal, the Williamson Act creates an incentive program for agricultural landowners to enroll their land in a no-development program.[30] The contract is a set ten-year term, which, following the initial term, renews automatically each year unless the landowner files a notice of nonrenewal or cancellation.[31] If landowners enroll their land in Williamson Act contracts, they receive tax breaks; rather than paying property tax as traditionally calculated, which takes into account the value of the demand for the land, the Williamson Act provides that landowners only pay property tax proportional to the capital income gained from the agricultural use of the land.[32] Because of the provisions established in the Williamson Act, agricultural landowners can save somewhere between twenty and seventy-five percent on property taxes owed each year.[33] This tax savings incentivizes owners to maintain production rather than sell their land to developers.

In 1998, the Williamson Act was updated to include Farmland Security Zones (FSZ), which provide for special twenty-year minimum contracts that give landowners an additional thirty-five percent tax reduction on property taxes.[34] In addition, lands in an FSZ contract cannot be annexed into a city or a non-agricultural services district, or be used for public school purposes.[35]

Although the Department of Conservation broadly oversees the Williamson Act program, local governments have discretion regarding the details of contract agreements and cancellation.[36] For example, local governments have the power to write the terms of each contract and approve lands suitable for the program.[37] In addition, it is within the discretion of the city or county to determine if an activity

29. CAL. GOV'T CODE § 51220(a) (West 2012).

30. *California Land Conservation Act*, CAL. FARM BUREAU FED'N, http://www.cfbf.com/issues/landuse/willamson_2003.cfm (last visited Oct. 16, 2011) (on file with the *McGeorge Law Review*).

31. GOV'T § 51244(a); *California Land Conservation Act*, *supra* note 30.

32. GOV'T § 51296.2(a)–(b); *California Land Conservation Act*, *supra* note 30.

33. *California Land Conservation Act*, *supra* note 30.

34. *Id.*

35. GOV'T §§ 51296.3–51296.6; *California Land Conservation Act*, *supra* note 30.

36. SOLAR POWER AND THE WILLIAMSON ACT, *supra* note 20, at 1.

37. *Id.*

is a "compatible use" on Williamson Act lands.[38] Although the Williamson Act includes a list of compatible uses, such as "gas, electric, water, communication, or agricultural laborer housing facilities," additional uses may be approved by a local board or council.[39] Generally, traditional uses, such as those necessary for furthering agrarian, leisure, or open public space objectives, are considered uses compatible with the Williamson Act.[40] Examples of this could include: building a shed to house farming equipment, diverting a stream for irrigation purposes, or placing solar panels on equipment buildings to help power farm generators.

To remove lands from a Williamson Act contract, a landowner can either file a notice of nonrenewal after the ten- or twenty-year contract has run its course, or a landowner can attempt to cancel the contract during the contract term.[41] If a landowner files a notice of nonrenewal after the end of the contract term, no fees are charged, but property tax on the land will return to the full amount.[42] If a landowner attempts to cancel a contract before the term expires, the cancellation is subject to discretionary approval by the local board, and, if granted, the landowner must pay a fee equal to "12.5 percent of the unrestricted value of the property to the state."[43] In addition, the government can also use its eminent

38. GOV'T § 51238.1. When determining if something is a compatible use, the local board or council must find that the use conforms to the following compatibility principles:

> (1) The use will not significantly compromise the long-term productive agricultural capability of the subject contracted parcel or parcels or on other contracts lands in agricultural preserves.
>
> (2) The use will not significantly displace or impair current or reasonably foreseeable agricultural operations on the subject contracted parcel or parcels or on other contracted lands in agricultural preserves. Uses that significantly displace agricultural operations on the subject contracted parcels or parcels may be deemed compatible if they relate directly to the production of commercial agricultural products on the subject contracted parcels or parcels of neighboring lands, including activities such as harvesting, processing, or shipping.
>
> (3) The use will not result in the significant removal of adjacent contracted land from agricultural or open-space use.

Id.

39. *See id.* §§ 51238–51238.1 (laying out a list of general compatible uses and then mandating consideration criteria for local governments when determining additional compatible uses).

40. *Id.* § 51201(e).

41. SOLAR POWER AND THE WILLIAMSON ACT, *supra* note 20, at 3.

42. *Id.*

43. *Id.* "The grounds for cancellation are codified in Government Code section 51282, which allows for cancellation of a Williamson Act contract only when cancellation: (1) is consistent with the purposes of the Act; or (2) is in the public interest. Some jurisdictions require both findings." *Id.* For a project to be "consistent with the purposes of the Williamson Act" it must be shown to the local board that:

> (1) notice of non-renewal has been served; (2) cancellation would not likely lead to a domino effect where nearby agricultural lands would be removed from production; (3) cancellation is consistent with the local General Plan; (4) cancellation would not result in scattered (or 'leapfrog') urban development; and (5) no other suitable land is available for the project.

Id. If the above cannot be met, a landowner can attempt to show the board that:

> (1) the benefits to the State, as a whole, substantially outweigh the State's interest in preserving that land for agricultural production; and (2) either no other suitable non-contracted land is available nearby, or the development of the contract land would result in more contiguous urban development than development of nearby non-contracted land.

domain power to remove land from a Williamson Act contract by condemning the land for a public purpose.[44]

B. The Road to Chapter 596

As the need to develop renewable energy sources increased, energy planners began to look to agricultural lands as building sites for major solar projects.[45] With over 16.5 million acres of California's agricultural land held in Williamson Act contracts,[46] this was an attractive target for solar installation companies due to the ideal layout of the land—clear, flat, and unobstructed.

From the start, many energy companies investigated whether solar easements could be considered a "compatible use" for Williamson Act lands.[47] Although the Williamson Act does state that "electric facilities" are a compatible use, there has been much debate about whether "electric facilities" as used in the Act[48] was intended to, or should include projects such as solar easements.[49] Because of the local level enforcement and control over Williamson Act contracts, the compatibility issue can vary from location to location. Some counties interpret the words "electric facilities" to be compatible with solar development, while others take a narrower stance and prevent development, and finally, some counties address the issue on a case-by-case basis.[50] From a logical standpoint, complete eradication of agricultural uses in favor of large-scale solar projects seems contrary to the very definition of the term "compatible," which means "existing together in harmony."[51] It is hard to conceive that some cities or counties can find large-scale solar facilities to be "compatible" with agricultural use of the land as one completely precludes the other from existing; nevertheless, such determinations have been, and will likely continue to be, made in the future.[52]

To avoid the issue, many landowners bypassed the question and instead filed notices of non-renewal of their Williamson Act contracts before committing the

Id. at 4.

44. *Id.*

45. Souza, *supra* note 14.

46. THOMPSON, *supra* note 16.

47. *See, e.g.*, David H. Blackwell & Michael Patrick Durkee, *Are Solar Farms Compatible with the Williamson Act?*, LAND USE NAVIGATORS, http://landusenavigators.com/articles/are-solar-farms-compatible-with-the-williamson-act (last visited Nov. 6, 2011) (on file with the *McGeorge Law Review*) (arguing that solar easements are a compatible use for Williamson Act lands).

48. CAL. GOV'T CODE § 51238(a)(2) (West 2012).

49. Blackwell & Durkee, *supra* note 47.

50. SOLAR POWER AND THE WILLIAMSON ACT, *supra* note 20, at 2.

51. *Compatible*, MERRIAM-WEBSTER ONLINE DICTIONARY, http://www.merriam-webster.com (last visited Jan. 23, 2012) (on file with the *McGeorge Law Review*).

52. *See* SOLAR POWER AND THE WILLIAMSON ACT, *supra* note 20, at 2 (explaining how solar facilities could be considered compatible within Williamson Act contracts).

land to solar development.[53] For some landowners, this option is impracticable due to the length of time remaining on their contract. Some landowners seek assistance from local governing boards either in the form of removal of their property from a contract or a finding of compatibility concerning solar development.[54] In fact, in Fresno County, ninety acres of prime agricultural land was recently removed from Williamson Act contract by vote of the board of supervisors.[55]

Uncertainty about the compatibility between Williamson Act lands and solar development prompted the passage of Chapter 596, which specifically allows "a city or county and a landowner to rescind a Williamson Act . . . contract on agricultural lands . . . of limited agriculture value and enter into a solar-use easement that restricts the use of land to . . . solar facilities."[56] Land taken out of a Williamson Act contract and placed into a solar easement is not subject to the standard termination fees at the time of the switch; however, if the landowner tries to cancel the solar easement contract before its ten-year expiration, these fees will again apply.[57]

Regarding the issue of solar development on Williamson Act lands, Chapter 596 answers the controversy only in part. Although Chapter 596 expressly allows lands of limited agricultural value to be withdrawn from a Williamson Act contract and enrolled into a solar easement contract, provisions of Chapter 596 leave open the option for county officials to find that solar development on prime agricultural land is a compatible use.[58] Therefore, persons owning prime agricultural land who wish to develop the land for solar purposes are in the exact same position as they were before Chapter 596 was enacted and these invaluable agricultural lands are still endangered.

C. Chapter 596 and Its Impact on Williamson Act Contracts and Solar Easements

Chapter 596 allows landowners who are party to a Williamson Act contract to immediately rescind the contract and re-enroll their land in a solar easement contract.[59] A solar easement contract incorporates the basic workings of a

53. Blackwell & Durkee, *supra* note 47.

54. *See, e.g.*, Souza, *supra* note 14 ("Some public officials have opted to take land out of the Williamson Act to install solar panels.").

55. *Id.*

56. ASSEMBLY COMMITTEE ON NATURAL RESOURCES, COMMITTEE ANALYSIS OF SB 618, at 1, 4–5 (Cal. Sept. 9, 2011).

57. *Id.* at 2–3.

58. *See* CAL. GOV'T CODE § 51255.1(b) (West 2012) ("This section is provided in addition to, not in replacement of, other methods for contract termination, Williamson Act compliance, or a county finding that a solar facility is a compatible use pursuant to this chapter.").

59. ASSEMBLY COMMITTEE ON NATURAL RESOURCES, COMMITTEE ANALYSIS OF SB 618, at 1 (Cal. Sept. 9, 2011).

Williamson Act contract but with a new aim of limiting land use for solar project purposes.[60] To enroll land in a solar easement, the city or county must petition "the Department of Conservation, . . . [together] with the [California] Department of Food and Agriculture, [to] determine, based on substantial evidence, that a parcel or parcels is eligible for rescission under [the Act] for placement into a solar-use easement . . . ."[61] To qualify, landowner's must provide:

> a proposed management plan describing how the soil will be managed during the life of the easement, how impacts to adjacent agricultural operations will be minimized, [and] how the land will be restored to its previous general condition, as it existed at the time of project approval, upon the termination of the easement.[62]

Land eligible for this process cannot be land designated as prime agricultural land, unique farmland, or land of statewide importance.[63]

In fact, in order for Williamson Act land to be withdrawn for a solar easement, the land must meet one of two criteria: either the land must "consist[] predominately of soils with significantly reduced agricultural productivity for agricultural activities" or the land must have "severely adverse soil conditions that are detrimental to agricultural activities and production."[64] These protective guidelines are furthered by a provision that requires that land designated as important farmland not be reclassified to a lesser status due to a lack of irrigation.[65]

Land removed from a Williamson Act contract and re-enrolled into a solar easement contract is re-enrolled for a twenty-year term; however, at the request of the landowner, the term can be lowered to a minimum of ten years.[66] Like with a Williamson Act contract, once the term is complete, the solar easement contract will automatically renew unless a party files a notice of nonrenewal.[67] A solar easement contract can be terminated by nonrenewal, cancellation, or by putting the land back into a Williamson Act contract pursuant to Williamson Act restrictions for the remainder of the term.[68]

The legislature passed Chapter 596 to make it easier for landowners to withdraw land from Williamson Act contracts in order to re-enroll the land in

60. GOV'T § 51190(c).
61. *Id.* § 51191(a).
62. *Id.* § 51191(c).
63. *Id.* § 51191(a)(2).
64. *Id.* § 51191(a)(1)(A)–(B).
65. *Id.* § 51191(a)(2).
66. *Id.* § 51191.2.
67. *Id.*
68. *Id.* § 51192(a).

solar easement contracts and build large-scale solar facilities.[69] Although provisions in Chapter 596 are very protective of important agricultural land,[70] the strength of these provisions will no doubt be tested in court before long. Further, Chapter 596 does little to protect prime farmland in areas where local governing boards have found solar development to be a "compatible use" within the meaning of the Williamson Act.[71]

Until this point, this discussion has not yet mentioned the fact that two-thirds of California's privately owned farmland is not enrolled in a Williamson Act contract[72] and therefore lacks even the lesser type of protection against solar development that the Williamson Act and Chapter 596 provide. This issue will be discussed in more detail in Part IV.B.

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69. 2011 Cal. Stat. ch. 596, § 1.

The Legislature hereby finds and declares all of the following:

> (a) The California Land Conservation Act of 1965 that has become known nationwide as the Williamson Act is critical to the welfare of the people of our state and nation.
>
> (b) The Williamson Act provides a statutory framework for local implementation of California's most effective farm and ranch land preservation program, protecting over 16.5 million acres or nearly one-third of all privately owned land in California.
>
> (c) The long-term conservation of agricultural and open-space land ensures that a steady supply of high-quality, low-cost fresh foods is available to urban residents, provides open-space uses that benefit the public seeking escape from the closeness of urban society, protects watersheds and vast areas of wildlife habitat, and conserves world-class agricultural soils.
>
> (d) On April 12, 2011, Governor Brown signed legislation that requires one-third of the state's electricity to come from renewable sources by December 31, 2020.
>
> (e) In establishing the 33 percent California Renewables Portfolio Standard Program (RPS program), there will be many important benefits to California, including new investment in green technologies in the state, job creation, improvements in local air quality, energy independence, and a reduction in greenhouse gas emissions.
>
> (f) Utility scale photovoltaic electrical energy production is crucial to achieving and hopefully exceeding California's RPS program goals.
>
> (g) Encouraging utility scale photovoltaic energy facilities on marginally productive or physically impaired land by providing expedited termination of Williamson Act contracts, without penalty, will protect the many statewide benefits of the program while providing significant economic incentives for new solar power development.
>
> (h) In enacting Section 9 of this act, it is the intent of the Legislature to provide an additional method for terminating a Williamson Act contract, in addition to those methods already authorized by statute, for the purpose of encouraging the development of utility scale solar photovoltaic facilities on marginally productive or physically impaired farmland. It is not intended to be the exclusive method of contract termination, nor of Williamson Act compliance for solar facilities, but merely another option that is consistent with the constitutional limitations of Section 8 of Article XIII of the California Constitution.

Id.

70. *See* GOV'T § 51191 (setting up protections to ensure that prime and important farmland is not removed from a Williamson Act contract and enrolled in a solar easement contract).

71. *See generally* 2011 Cal. Stat. ch. 596, §§ 1–11 (lacking any discussion concerning governing boards that find solar development compatible with Williamson Act contracts).

72. *See* SOLAR POWER AND THE WILLIAMSON ACT, *supra* note 20, at 1 (claiming that one-third of all privately owned farmland in California is in enrolled in a Williamson Act contract).

III. AGRICULTURAL LAND PROTECTION: MORE BENEFICIAL IN THE LONG RUN

Part III of this Comment looks at the costs and benefits of developing large-scale solar facilities on agricultural land as opposed to other places, such as rooftops. First, this Part will concentrate on the trade-off between using agricultural land for large-scale solar energy production rather than food production and the impacts that this creates. Next, this Part addresses the *inflexibility* as to where agricultural production can occur as opposed to the *flexibility* of where solar projects can be developed. Finally, this Part explores why solar production is actually better suited for the cities as opposed to rural agricultural lands.

A. The Environmental Bottom Line: Solar Energy versus Locally Grown Produce

If environmental improvement is the goal, the quest should be to generate renewable energy in a way that will have the greatest positive impact, both in terms of energy production, and in terms of the consequential impacts created by renewable energy facilities. Unfortunately, placing large-scale solar facilities on agricultural land may have the unintended consequence of harming the environment. For example, one major concern about placing solar facilities on agricultural land is that the food once locally grown on that land will instead be imported from out of state or out of country.[73] The importation costs of such food, including fuels for transportation, coupled with the added cost to the environment from foods produced in countries without stringent U.S. environmental regulations, could offset the net energy gain of solar facilities.

In addition, Californians risk their food safety by allowing countries without advanced food safety standards to produce the food once grown locally.[74] Although it is unarguable that agricultural lands would be the easiest and cheapest place to build solar facilities, it is important to think of the long-term effects of such action and the overall global impact on pollution that such action would cause.

73. *See generally* RONALD TROSTLE, ECON. RES. SERVICE/U.S. DEP'T OF AGRIC., WRS-0801, GLOBAL AGRICULTURAL SUPPLY AND DEMAND: FACTORS CONTRIBUTING TO THE RECENT INCREASE IN FOOD COMMODITY PRICES 6 (2008) (claiming that declining agricultural land resources, rising gas costs, and importation of commodities are factors in the increasing cost of food).

74. *See* Sean Poulter, *Families at Risk from Toxic Imported Foods*, MAILONLINE (Jan. 17, 2007), http://www.dailymail.co.uk/news/article-429303/Families-risk-toxic-imported-foods.html (on file with the *McGeorge Law Review*) ("Imported foods are not required to go through the same rigorous residues testing regime as those produced in [the United States].").

1. The Energy and Environmental Cost of Importation

Replacing agricultural fields with solar panels creates an entirely new set of environmental problems. Supplanting the crops once grown in those fields will require a lot more food importation in order to fill the void—importation that requires trucking and gasoline. In 2010, "[a]lmost 250,000 tons of global warming gases released were attributable to imports of food products—the equivalent amount of pollution produced by more than 40,000 vehicles on the road or nearly two power plants."[75] Although it is impossible to calculate the increase in importation rates due to solar development on agricultural lands, it is logical that an increase will occur. People are not going to stop eating, and the human population is not going to stop growing.[76] So, when people cannot obtain their food locally, they will acquire it the only other way they know how: have it shipped, hauled, or freighted in.

Aside from the shipping impacts, the growing practices of certain other countries regarding crop production create additional environmental impacts not anticipated. "Food grown outside the U.S. . . . often comes from countries with weak regulations regarding pesticides and pollution."[77] In contrast, California's environmental regulations are regarded as the most stringent in the country, particularly California's Clean Air Act, which required California to obtain special permission from the Federal government in order to enact its strict standards regarding air pollution.[78] The strong environmental concern shown by California's legislature is not necessarily shared by the governments of the importing countries—even though the environment itself is. Therefore, the tradeoff between renewable energy production created by erecting solar panels on agricultural land must be considered in light of the potential environmental pollution caused by increased demand for agricultural production in less-regulated states or countries.

75. NATURAL RESOURCES DEFENSE COUNCIL, FOOD MILES: HOW FAR YOUR FOOD TRAVELS HAS SERIOUS CONSEQUENCES FOR YOUR HEALTH AND THE CLIMATE (2007) (on file with the *McGeorge Law Review*).

76. Under current estimates, the United States is expected to increase its population by 392 million by 2050. Jennifer Cheeseman Day, *Population Profile of the United States*, U.S. CENSUS BUREAU, http://csrd.asu.edu/sites/default/files/pdf/Population%20Profile%20of%20the%20United%20States.pdf (last visited Jan. 16, 2012) (on file with the *McGeorge Law Review*). This would be more than a fifty percent increase from the population in 1990. *Id.*

77. *Food Facts: The Environmental Impact of Agriculture and Food Production*, SIERRA CLUB, http://www.sierraclub.org/sustainable_consumption/food_factsheet.asp (last visited Jan. 31, 2012) (on file with the *McGeorge Law Review*).

78. David Vogel, *Trading Up and Governing Across: Transnational Governance and Environmental Protection*, 4 J. OF EUROPEAN PUB. POL'Y 556, 561 (1997). Author David Vogel discusses what he calls "the California Effect," which is the pressure of other states and countries to conform to California's aggressive environmental standards. Therefore, California is not only bettering the environment within its own borders, it is also setting an example for the rest of society to follow. *See id.* at 561–68 (discussing the California Effect and its impact on the rest of the world).

2. Safety in Our Food Supply

If large-scale solar facilities are built on agricultural land and other food is imported to fill the void, not only will there be an environmental impact caused by importation, but the concern over food safety will also increase. "Imported foods are not required to go through the same rigorous residues testing regime as those produced in [the United States]."[79] In fact, only 1.3% of imported food even goes through an inspection process.[80] During one month in 2007, the United States Food and Drug Administration (FDA) refused to accept 850 shipments of imported foods for reasons ranging from salmonella contamination to unsafe use of food coloring.[81] More troubling, the House of Representatives recently voted to cut the FDA budget for the coming year, meaning that even less money will be available for inspection of imported foods.[82]

The U.S. food supply ranks among the safest in the world.[83] When compared against imported food, "a 2003 FDA report shows that pesticide violations were found in 6.1% of imported foods as opposed to 2.4% in domestic foods. Rates of *Salmonella* in fruit and vegetables registered at 4% for imported goods and 1.1% for domestic production."[84] Therefore, although there is never a guarantee that food will be 100% safe, it is clear that the regulations and oversight of domestic food production far exceed that of foods imported from out of country and create a safer food supply. Thus, not only would building large-scale solar facilities on California's agricultural land create increased pollution from the importation of food, it could also lead to dangers regarding the quality and safety of our food.

B. Lack of Alternatives for Agricultural Production

The bottom line is this: solar panels can go anywhere—rooftops, the desert, mountaintops, anywhere that there is at least some sun—whereas crops only grow in nutrient-rich, agricultural ground; ground that is already disappearing in California at a rate of 40,000 acres per year.[85] Even though solar easement

79. Poulter, *supra* note 74; *see also* Andrew Bridges, *Imported Food Rarely Inspected*, USATODAY (Apr. 16, 2007), http://www.usatoday.com/news/nation/2007-04-16-imported-food_N.htm (on file with the *McGeorge Law Review*) ("[T]he nation is vulnerable to harm from abroad, where rules and regulations governing food production are often more lax than they are at home.").

80. Bridges, *supra* note 79.

81. *Id.*

82. Gardiner Harris, *Agency Head Outlines Difficulties and Risks of Food and Drug Imports*, N.Y. TIMES, June 21, 2011, at B3.

83. *Questions About Food Safety*, U.S. FOOD & DRUG ADMIN., NEWS & EVENTS, http://www.fda.gov/newsevents/publichealthfocus/ucm247403.htm (last updated May 19, 2011) (on file with the *McGeorge Law Review*).

84. *The Issues of Food Safety*, SUSTAINABLE TABLE, http://www.sustainabletable.org/issues/foodsafety/ (last updated Sept. 2009) (on file with the *McGeorge Law Review*).

85. THOMPSON, *supra* note 16.

contracts must include a reclamation plan describing how the land will be returned to its prior condition,[86] there is no clause actually requiring that the solar panels ever be removed.[87] What we do know is that once land is developed, it tends to stay developed. In addition, the loss of California's agricultural land will negatively affect California's agricultural economy, which generates over 37.5 billion dollars in annual revenue.[88]

1. The Risk of Permanent Impairment to Agricultural Lands

Even assuming for a moment that land enrolled in a solar easement contract lapses and the landowner follows the reclamation plan required upon termination,[89] there is strong concern that complete reclamation of the land to its previous condition will be unattainable.[90] This concern stems from the fact that to build solar facilities and maintain them, the land under the solar panels must be cleared of all vegetation: a process that requires the land to be sprayed with an herbicide, which kills all growth.[91] Unfortunately, in our rush to develop renewable energy, there has been little research on whether land, once cleared of all vegetation for long periods of time, can successfully be returned to its vegetative state.[92]

Continual herbicide application, which would deprive the land of all vegetation, would also have a ripple effect. It would drive away the species of insects, bacteria, and animals that depend on the vegetation for growth and on which the vegetation depends on for pollination, fertilization, and other vital functions.[93] Aside from the harm caused to the species dependent on the vegetation, this ripple effect comes into play when an attempt is made to return the land to its prior condition; not only must the herbicide be depleted enough to

86. CAL. GOV'T CODE § 51191(c) (West 2012).

87. *See generally* 2011 Cal. Stat. ch. 596, §§ 1–9 (making no requirement that solar panels ever be removed from land enrolled in a solar easement contract and requiring only that the land must be returned to its prior condition if the panels are removed).

88. NATIONAL AGRICULTURE STATISTICS SERVICE, *supra* note 18.

89. *See* GOV'T § 51191(c) (laying out the requirement that land enrolled in a solar easement contract must include a reclamation plan).

90. Sarah Pizzo, *When Saving the Environment Hurts the Environment: Balancing Solar Energy Development with Land and Wildlife Conservation in a Warming Climate*, 22 COLO. J. INT'L ENVTL. L. & POL'Y 123, 135–36 (2011).

91. *Id.*

92. *See id.* at 136 ("[D]ue to the size of utility-scale solar project areas and the extent of landscape disturbance, restoration and reclamation of the project site may not be feasible with current technology.").

93. *See* NICOLE SEYMOUR, DEPT. OF PRIMARY INDUSTRIES & FISHERIES, IMPACTS OF PESTICIDES AND FERTILIZERS ON SOIL BIOTA, at 1, *available at* http://era.deedi.qld.gov.au/1296/1/Seymore_ImpactPesticides FertilisersSoilBiota-sec.pdf (on file with the *McGeorge Law Review*) (explaining that although the impact of pesticides and fertilizers on soil biota is not conclusive, "[a]ltering the detritus food web through the use of broad-spectrum pesticides reduces biological diversity and therefore alters the balance or equilibrium of the ecosystem.").

allow growth, but the entire bionetwork that was killed-off must be restored in order for growth to occur.[94]

Although plants and animals have shown themselves to be both resilient and flexible, the boundaries of their tolerance can only be pushed so far. The gamble taken by assuming that lands can be restored to their pre-developed state is a high-stakes game in which we are wagering the safety of our food supply. A gamble that is both unnecessary and unwise.

2. Viable Options for Solar Development Elsewhere

Although agricultural fields are desirable because they are flat, clear, and expansive, there are many other, more beneficial places to install solar panels. For example:

> [t]he United States has 30 billion square feet of commercial rooftop surface that can support [solar] systems. Placing [solar] panels on all the buildings would create 150 gigawatts of electricity, which would save 1 million acres . . . from destruction. "Micro" solar plants can also be constructed in parks and over parking lots.[95]

Rooftop solar projects, however, have extra hurdles that ground mounted solar projects do not. First, building on rooftops is not easy; not only must the roof be able to support the weight of the panels, but also, installation at rooftop levels is just not as easy as building something on the ground.[96] In addition, the rooftops themselves must be replaced over time; a process made more difficult when the roof is covered in solar panels, because the solar panels must be disassembled and removed before re-roofing can take place.[97]

Second, building solar panels on rooftops increases the contracting costs for solar development companies because it is more cost-effective for a developer to contract with one farmer for a large amount of land, rather than contracting with the many different building owners it would require to gain an equivalent amount of rooftop space.[98] Because it is the developer's job to find the cheapest and most compatible space available for every project, not to take into account the various social aspects of such decisions, it is even more imperative for the government to have the foresight to consider societal impacts of solar development locations.

94. *See Herbicides—Environmental Effects of Herbicide Use*, JRANK, http://science.jrank.org/pages/3305/Herbicides-Environmental-effects-herbicide-use.html (last visited Feb. 23, 2012) (on file with the *McGeorge Law Review*) (explaining that "by changing the vegetation of treated sites, herbicide use also changes the habitat of animals . . . .").

95. Pizzo, *supra* note 90, at 155 (citations omitted).

96. Interview with Patrick O'Neill, Employee of Blue Oak Energy, Solar Design and Installation Company, in Davis, Cal. (Sept. 22, 2011) (notes on file with the *McGeorge Law Review*).

97. *Id.*

98. *Id.* ("Solar development currently follows the traditional economy-of-scale law.").

For this reason, the government should predetermine where solar construction should take place rather than leave such decisions in the hands of those charged only with the economic aspects of construction.

It is clear that building solar projects on rooftops would be a more difficult undertaking; however, increased difficulties are no excuse for poor planning. Rooftops are open, available,[99] and not needed for other vitally important purposes such as food production. The long-term benefit of thoughtful planning for rooftop installation rather than the rushed development of land needed for other purposes, is worth the extra effort. Unlike the environmental trade-offs of potential land destruction and increased importation cost incurred from solar development on agricultural land, rooftop installation incurs few, if any, environmental trade-offs.[100]

In addition, there are many other places besides rooftops that are suitable for solar development and that would not tie-up our agricultural land. Some of these places include "abandoned mines, developed oil and gas fields, decommissioned fossil fuel plants, and other brownfields,[[101]] which are not being restored . . . ."[102] Not only are these places great for solar installation because they cannot be used for other types of development or growing purposes, but these sites also tend to be close to existing energy infrastructures, which, as will be discussed shortly, is also important.[103]

Let us not make the same environmental mistakes that we have so often in the past: taking the easy road now only to pay a harsh and increased price for our actions later on.

C. Why Solar Is Better in the City: More Bang for Your Buck

Less energy is wasted when solar power is produced close to the source of its use. In order for the energy from solar panels to be used, the energy harvested must be tied into the grid,[104] a process requiring electricity lines to be run from

99. Pizzo, *supra* note 90, at 155.

100. *See id.* at 154–56 (claiming that solar panels are better suited for rooftops, roadways, or lands already suffering from environmental degradation because such placement is better for the animals and the environment).

101. A "brownfield" is a term of art which refers to a parcel of land that has been contaminated by a "hazardous substance, pollutant, or contaminate" to such an extent that redevelopment or reuse of the property is difficult and expensive. *Brownfields and Land Vitalization*, U.S. EPA, http://www.epa.gov/brownfields/ (last updated Mar. 9, 2012) (on file with the *McGeorge Law Review*).

102. Pizzo, *supra* note 90, at 154.

103. *See infra* Part III.C.

104. "The 'grid' consists of the networks that carry electricity from the plants where it is generated to consumers, and includes wires, substations, transformers, switches and much more." *Siemens Smart Grid Solutions*, SIEMENS, http://www.energy.siemens.com/us/en/energy-topics/smart-grid/?stc=usccc025151 (last visited Jan. 27, 2012) (on file with the *McGeorge Law Review*).

the solar panels to a grid location.[105] Not only does this process require more land and land clearing to construct the energy lines, the energy harvested by the panels degenerates as it moves through the lines to the grid.[106] Therefore, as the distance increases between the solar panels and the place where the energy ties into the grid, a greater percentage of energy is lost.[107] According to author Harvey Blatt, when the typical alternating current (AC) transmission lines transport renewable energies, nearly ten percent of the energy is lost over a distance of about six-hundred miles.[108]

As a result, it is more advantageous for solar panels to be close to a city center where the grid is nearby and further land requirements are not necessary for energy line construction.

> Instead of building huge solar power plants located hundred[s] of miles from cities where energy is needed, people should "relocalize" by producing solar energy where it is needed. Locating . . . solar panels on the roofs of homes, businesses, and other buildings would reduce the need for additional land and the costs of energy transmission.[109]

Therefore, to make the most efficient use of solar development, it is best to build facilities near population centers.[110]

D. Protecting the Agricultural Economy

In addition, the loss of California's agricultural land will severely affect the economy in a negative way.[111] California's agriculture industry generates over 37.5 billion dollars in annual revenue.[112] As of 2002, "about 90,000 commercial establishments in California [were] connected to agricultural production, including farm machinery manufacturing, food and beverage manufacturing

105. Interview with Patrick O'Neill, *supra* note 96.

106. *Id.*

107. *Id.*

108. HARVEY BLATT, AMERICA'S ENVIRONMENTAL REPORT CARD: ARE WE MAKING THE GRADE 49 (2d ed. 2011). In making this point, Harvey Blatt argues that the United States should invest in high voltage direct current transmission lines which would lose less than three percent of the energy fed into the lines over a six-hundred mile span. *Id.*

109. Pizzo, *supra* note 90, at 154–55.

110. This does not mean that large-scale solar projects in remote areas such as the desert cannot be profitable; it just means that more energy is wasted in transporting the energy than if the solar facility were closer to the grid. Solar projects in remote areas tend to combat this problem by increasing the scale of the project to justify the loss of energy expended in transport. *See* Interview with Patrick O'Neill, *supra* note 96.

111. *See* THOMPSON, *supra* note 16 ("If current development trends continue, 1.3 million acres of California agricultural land, including 670,000 acres of prime, unique and statewide important farmland, will be developed by 2050. For irrigated cropland alone, this would entail an annual loss of an estimated $2 billion in agricultural production in current farm gate dollars.").

112. NATIONAL AGRICULTURE STATISTICS SERVICE, *supra* note 18.

companies and others."[113] In terms of agriculture's direct impact, it accounts for 3.8 percent of the all jobs in California and 39.6 billion dollars' worth of income taxes generated by labor and revenue.[114] "Overall, including ripple effects, agricultural production and processing generated 7.3 percent of all jobs, 5.6 percent of all labor income and 6.5 percent ($90.2 billion) of labor and property income and indirect business taxes in the state."[115] A loss of California's agricultural lands is not only a threat to those who wish to farm the lands; it is a threat to California's economy as a whole.

IV. PROPOSED SOLUTIONS TO THE CONFLICT

This Part proposes a two-fold solution to protecting California's agricultural land, while at the same time allowing for growth of our renewable energy supply. In Section A, I argue that the courts should interpret "severely adverse soil conditions" and "significantly reduced agricultural productivity" in a narrow manner to prevent landowners and developers from abusing certain ambiguities in Chapter 596. I argue that a narrow definition is both logical and consistent with legislative intent as it relates to Chapter 596 and the Williamson Act. In Section B, I argue that new legislation is necessary to amend the Renewable Energy Mandate to prevent solar development on land designated as "prime," "unique," or "land of statewide importance." Although these types of land are somewhat protected in regards to land enrolled in a Williamson Act contract, no such protection exists for the nearly two-thirds of agricultural land that is not part of a Williamson Act contract.[116]

A. Courts Should Interpret "Severely Adverse Soil Conditions" and "Significantly Reduced Agricultural Productivity" to Lend the Most Possible Protection to Agricultural Land

Although Chapter 596 requires that solar easements only be permitted on land with "severely adverse soil conditions" or "significantly reduced agricultural productivity," these words are not specifically defined in the statute[117] and therefore will likely be interpreted by the court at some time in the future. I argue that it is consistent with the plain meaning of the language and the legislative

113. Jeannette Warnert, *California Agriculture Contributes Significantly to the State Economy*, UNIV. OF CAL. (Feb. 15, 2008), http://ucanr.edu/News/News_Releases/?uid=1063&ds=191 (on file with the *McGeorge Law Review*).

114. *Id.*

115. *Id.*

116. *See* 2011 Cal. Stat. ch. 1, § 1 (providing no limitations on solar project development on land designated as "prime," "unique," or "land of statewide importance").

117. *See* CAL. GOV'T CODE § 51190 (West 2012) (failing to define "severely adverse soil conditions" or "significantly reduced agricultural production").

intent behind Chapter 596 for the court to interpret "severely adverse soil conditions" and "significantly reduced agricultural productivity" in a way that lends the greatest possible protection to agricultural land and therefore the future of agriculture in California. Further, in interpreting these phrases to encompass all possible agricultural uses of the land, the court would maintain and uphold the purpose of the Williamson Act, which is to preserve "a maximum amount of the limited supply of agricultural land . . . ."[118]

1. A Failure to Define "Severely Adverse Soil Conditions" or "Significantly Reduced Agricultural Productivity" Within Chapter 596

To be sure, Chapter 596, as codified in Government Code section 51190, makes a fair attempt to define what land may be taken out of a Williamson Act contract[119]—however, the language in this criteria section does not specifically

118. *Id.* § 51220(a).

119. *Id.* § 51191(a)–(b). The criteria section states:

(a) For purposes of this chapter, and for purposes of Chapter 7 (commencing with Section 51200), the Department of Conservation, in consultation with the Department of Food and Agriculture, upon a request from a city or county, may determine, based on substantial evidence, that a parcel or parcels is eligible for rescission under Section 51255.1 for placement into a solar-use easement if the following criteria are met:

(1) The land meets either of the following:

(A) The land consists predominately of soils with significantly reduced agricultural productivity for agricultural activities due to chemical or physical limitations, topography, drainage, flooding, adverse soil conditions, or other physical reasons.

(B) The land has severely adverse soil conditions that are detrimental to continued agricultural activities and production. Severely adverse soil conditions may include, but are not limited to, contamination by salts or selenium, or other naturally occurring contaminants.

(2) The parcel or parcels are not located on lands designated as prime

farmland, unique farmland, or farmland of statewide importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Natural Resources Agency, unless the Department of Conservation, in consultation with the Department of Food and Agriculture, determines that a parcel or parcels are eligible to be placed in a solar-use easement based on the information provided in subdivision (b) that demonstrates that circumstances exist that limit the use of the parcel for agricultural activities. For purposes of this section, the important farmland designations shall not be changed solely due to irrigation status.

(b) To assist in the determination described in this section, the city or county shall require the landowner to provide to the Department of Conservation the following information to the extent applicable:

(1) A written narrative demonstrating that even under the best currently available management practices, continued agricultural practices would be substantially limited due to the soil's reduced agricultural productivity from chemical or physical limitations,

(2) A recent soil test demonstrating that the characteristics of the soil significantly reduce its agricultural productively.

(3) An analysis of water availability demonstrating the insufficiency of water supplies for continued agricultural production.

(4) An analysis of water quality demonstrating that continued agricultural production would, under the best currently available management practices, be significantly reduced.

delimit or define the full extent of the phrases "severely adverse soil conditions" or "significantly reduced agricultural productivity." In fact, when speaking to "severely adverse soil conditions," the statute says that considerations "*may* include, *but are not limited to*" the criteria listed therein,[120] thus providing that the meaning of the phrase can be broader than the limits of the listed criteria and leaving the meaning open for additional interpretation. Likewise, when speaking to "significantly reduced agricultural productivity" and listing conditions that might affect this status, the paragraph ends with "or other physical reasons."[121] Such open-ended language allows unidentified considerations to be made before concluding that the land is of a "significantly reduced agricultural productivity" and again leaves open for interpretation what "other physical reasons" could be considered.

Furthermore, the legislature provided that "the Department of Conservation, in consultation with the Department of Food and Agriculture, upon a request from a city or county, *may* determine, based on substantial evidence, that a parcel or parcels is eligible for rescission" based on the stated criteria,[122] rather than requiring that the Departments *shall* determine that land is eligible for removal once it meets the stated criteria. The legislature leaves open the possibility that, even if the criteria are met, the Departments might find that the land should not be removed from contract, possibly because the land does not meet a broader understanding of "severely adverse soil conditions" or "significantly reduced agricultural productivity." If the removal criteria does not create per se categories for these phrases, the question remains as to what these phrases mean and how the Department of Conservation with the Department of Food and Agricultural, finding that land meets the listed criteria, might also find that the land does not meet the requirement of "severely adverse soil conditions" or "significantly reduced agricultural productivity."

A further reason the criteria listed in Government Code section 51191 is inappropriate as creating a per se category of "severely adverse soil conditions" or "significantly reduced agricultural productivity" is that these considerations look only at the general aspects of agriculture such as soil condition, topography, water availability, and productivity of the land.[123] These criteria, although telling as to crop production, do not indicate whether the land could be used for agricultural activities such as raising livestock, equipment storage, or other types of non-crop production agriculture like rangeland.[124] Further, the considerations

(5) Crop and yield information for the past six years

Id.

120. *Id.* § 51191(a)(1)(B) (emphasis added).

121. *Id.* § 51191(a)(1)(A).

122. *Id.* § 51191(a) (emphasis added).

123. *See generally id.* § 51191(a)–(b) (listing the criteria which cities and counties must consider before land is removed from a Williamson Act contract for a solar easement).

124. Rangeland is defined as "[a]n expanse of land suitable for livestock to wander and graze on."

do not take into account the potential of the land as aided by currently developing technology that could bring the land back to life—agriculturally speaking of course—such as advances in irrigation practices or desalination techniques for soil.[125] These broader considerations would seem to lend themselves toward finding that the land does not meet the "severely adverse soil conditions" or "significantly reduced agricultural productivity" classifications, even though the land might satisfy the criteria in section 51191. Therefore, I would encourage a court, when faced with a lawsuit regarding this issue, to consider the fact that land, which meets criteria found in California Government Code section 51191, might be, based on other considerations such as those stated above, inappropriate for placement into a solar easement because the land might still rise above being categorized as having "severely adverse soil conditions" or "significantly reduced agricultural productivity."

2. *The Plain Meaning of "Severely Adverse Soil Conditions" and "Significantly Reduced Agricultural Productivity"*

When interpreting the meaning of a statute, the first place a court should start is with the plain or ordinary meaning of the words used.[126] If there is a plain, unambiguous meaning, the court should apply that meaning.[127] Therefore, in this instance the court should look at the plain meaning of "severely adverse soil conditions" and "significantly reduced agricultural productivity" and determine if such phrases have unambiguous meanings and what those meaning are. From there, it can be determined if the unambiguous meaning of "severely adverse soil conditions" or "significantly reduced agricultural productivity" would logically be interpreted to take into consideration more than just the criteria provided in California Government Code section 51191.[128]

Rangeland Definition, THE FREE DICTIONARY, http://www.thefreedictionary.com/rangeland (last visited May 6, 2013) (on file with the *McGeorge Law Review*). It is also defined as "land that naturally produces forage plants suitable for grazing but where rainfall is too low or erratic for growing crops." *Id.*

125. For example, in California Government Code section 51191(b)(2)–(3), the statute explains that to assist in determining if land should be removed from a Williamson Act contract and placed into a solar easement, the landowner shall submit "[a] *recent* soil test demonstrating that the characteristics of the soil significantly reduce its agricultural productively." *Id.* § 51191(b)(2) (emphasis added). A *recent* soil test provides no insight into whether the condition of the soil leading to a lack of productivity is the result of over-farming, over fertilizing, or any other type of practice that could be remedied with time or new technology. So long as the *recent* test shows that at that, at that point in time, the soil is unproductive, the qualifications are met. *Id.* In much the same way, the statute also requires "[a]n analysis of water availability demonstrating the insufficiency of water supplies for continued agricultural production." *Id.* § 51191(b)(3). This requirement indicates nothing about the potential for water availability in the future or whether water has been available in the past. The focus of these considerations centers purely on the present and includes no consideration for the probability of future developments that could render the land fertile and/or productive.

126. Fireman's Fund Ins. Co. v. Super. Ct., 78 Cal. Rptr. 2d 418, 421–24 (Ct. App. 1997).

127. *Id.*

128. *See supra* note 119 for the full text of the criteria section of this statute.

Webster's Dictionary defines "severe" as something that is "of a great degree,"[129] and defines "adverse" as "acting against or in a contrary direction."[130] Putting the meanings of these two words together, the phrase "severely adverse soil conditions" within section 51191 would imply a requirement that not only must the soil actually be of such a nature that it is "contrary" to the purpose of agricultural use, but it must be "contrary" to a "great degree."[131] The implication that soil can be "adverse" to agricultural production in varying degrees creates levels and ranges of adversity; based on the wording in the statute, only the highest level of adversity will suffice. This means that a mere showing of *somewhat* adverse is not adequate. To help determine the degree of the adversity, the statute requires that a landowner "shall" provide to the Department of Conservation certain information, in order "to assist" the Department in determining how to categorize their land.[132] The fact that these productions are only meant "to assist"[133] in the categorization of the land seems to leave open the possibility that the Department may consider other factors that tend to affect the degree of adversity of the soil and whether the degree meets that highest requirement of "*severely* adverse."

To interpret the term "severely adverse" in any manner that fails to consider relevant information and thus might encompass land beyond the highest degree of adversity to agricultural production would broaden the commonly understood meaning of the terms. Therefore, in applying the plain meaning of "severely adverse soil conditions" as used in section 51191, the court should only allow land that is, to the greatest degree, contrary to agricultural production to be withdrawn from a Williamson Act contract and enrolled in a solar easement.

Chapter 596 allows land to be withdrawn from a Williamson Act contract if the land is categorized as having "severely adverse soil conditions" *or* "significantly reduced agricultural productivity."[134] The use of the term *or* rather than *and* provides greater opportunity for release from contract because only one or the other condition must be met rather than having to meet both. Therefore, it is equally important to determine the meaning of "significantly reduced agricultural productivity."

Much to the same degree as the definition above, "significantly reduced agricultural productivity" implies that a certain *degree* of "unproductiveness" must be met. As defined in Webster's Dictionary, "significant" means something

129. *Severe Definition*, MERRIAM-WEBSTER.COM, http://www.merriam-webster.com/dictionary/severe (last visited Dec. 21, 2012) (on file with the *McGeorge Law Review*).

130. *Adverse Definition*, MERRIAM-WEBSTER.COM, http://www.merriam-webster.com/dictionary/adverse (last visited Dec. 21, 2012) (on file with the *McGeorge Law Review*).

131. *See supra* notes 129–30 and accompanying text (defining each term in turn).

132. CAL. GOV'T CODE § 51191(b) (West 2012).

133. *Id.*

134. *Id.* § 51191(a).

"of a noticeably or measurably large amount."[135] "Reduced" means "to diminish in size, amount, extent, or number,"[136] and "productivity" is defined as "yielding results, benefits, or profits."[137] Putting all of this together, this phrase establishes a requirement that the degree to which the land is unproductive is a "measurably large amount" which limits the land from "yielding results, benefits, or profits."[138] Noticeably, the definition of "productive" is not limited to the narrow understanding that crops must be *growing* on the land.[139] Land may be "productive" for agricultural purposes when it can produce profits or benefits regardless of the land's ability to grow crops. Such profits or benefits might be made using the land for cattle raising, housing farm equipment, or storing crops. Such actions are beneficial to agricultural practices without actually "producing" crops. Therefore, when the court considers whether land is of "significantly reduced agricultural productivity," they should understand that this meaning requires that the land, in "a measurably large amount," be diminished in its ability to be beneficial or profitable for agricultural purposes, taking into consideration agricultural functions that might not involve crop growing.

3. A Narrow Interpretation Supports Legislative Intent

In addition to the fact that the plain meaning of the words warrants a narrow understanding of what lands can be taken out of Williamson Act contracts and enrolled in solar easements, legislative intent lends additional support to this theory. One of the main purposes of Chapter 596, as declared by the legislature, is to "[e]ncourag[e] utility scale photovoltaic energy facilities on *marginally productive* or *physically impaired* land by providing expedited termination of Williamson Act contracts, without penalty . . . ."[140] The legislature further elaborates that this enactment "will protect the many statewide benefits of [the Williamson Act] while providing significant economic incentives for new solar power development."[141] The sponsors of Chapter 596 maintained that it was their intent for this legislation to protect important agricultural land by making sure that solar projects are located in areas that make the most economic sense.[142]

135. *Significant Definition*, MERRIAM-WEBSTER.COM, http://www.merriam-webster.com/dictionary/significant (last visited Dec. 21, 2012) (on file with the *McGeorge Law Review*).

136. *Reduce Definition*, MERRIAM-WEBSTER.COM, http://www.merriam-webster.com/dictionary/reduce (last visited Dec. 21, 2012) (on file with the *McGeorge Law Review*).

137. *Productive Definition*, MERRIAM-WEBSTER.COM, http://www.merriam-webster.com/dictionary/productive (last visited Dec. 21, 2012) (on file with the *McGeorge Law Review*).

138. *See supra* notes 135–137 and accompanying text (defining each term in turn).

139. *See Productive Definition*, *supra* note 137 (claiming that the term productive applies when something is "yielding results, benefits, or profits").

140. 2011 Cal. Stat. ch. 596, § 1(g) (emphasis added).

141. *Id.*

142. *See* ASSEMBLY COMMITTEE ON NATURAL RESOURCES, COMMITTEE ANALYSIS OF SB 618, at 5 (Sept. 9, 2011) ("Furthermore, supporters state that this bill will accomplish the goal of ensuring that solar

Based on the fact that the writers of Chapter 596 took great effort to ensure that important agricultural land is not used for solar easements,[143] along with the intent of the Williamson Act to protect California's agricultural land,[144] a narrow definition of "severely adverse soil conditions" and "significantly reduced agricultural productivity" would be consistent with legislative intent. The goal of protecting agricultural land to the maximum extent possible can be seen in the legislature's strict forbiddance of removal of lands designated as "prime farmland, unique farmland, or land of statewide importance."[145] In addition, the legislature included the caveat that such designated lands could not be reclassified "solely due to irrigation status."[146] Such a restriction indicates the seriousness with which the legislature views the protection of these important agricultural lands and their unwillingness to let developers find loop-holes for land that has been so designated.

Therefore, to be consistent with the legislature's intent, the meaning of "severely adverse soil conditions" and "significantly reduced agricultural productivity" should be interpreted narrowly to include only lands that, when removed from a Williamson Act contract, will not impact the agricultural market due to the inability of such lands to be used for agricultural purposes. Considerations for use should include, but are not limited to, crop production, cattle grazing, equipment storage, or a high potential for agricultural use based on current scientific developments.[147] These considerations exceed the criteria listed in section 51191 and should be looked at in addition to those factors.

4. Preventing Abuse of Chapter 596

Interpreting "severely adverse soil conditions" and "significantly reduced agricultural productivity" in the narrowest way possible will prevent abuse of Chapter 596 by developers and those whose economic interests lie in solar development.[148] It is in the interest of such developers that Chapter 596 be read broadly to allow more land to be open for development; there is little doubt that they will advocate for such an interpretation. Even for those who own the land, there is often strong economic incentive to develop the land for solar easements.

projects are located appropriately without undermining the Act and will ensure that solar projects are implemented in a manner that makes sense and balances multiple interests.").

143. *See, e.g.*, CAL. GOV'T CODE § 51191(a)–(b) (West 2012) (listing the criteria which cities and counties must consider before land is removed from a Williamson Act contract for a solar easement).

144. SOLAR POWER AND THE WILLIAMSON ACT, *supra* note 20, at 1.

145. GOV'T § 51191(a)(2).

146. *Id.*

147. *See, e.g.*, IMPROVING PRODUCTIVITY IN AGRICULTURE, INTERNATIONAL ATOMIC ENERGY AGENCY, *available at* http://www.iaea.org/Publications/Factsheets/English/agriculture.pdf (last visited Apr. 19, 2013) (on file with the *McGeorge Law Review*) (discussing technological advances used to improve water and soil management and pest control).

148. *See* discussion *supra* Part IV.A.1–3.

Particularly in years of draught or low crop prices, the incentive to withdraw from agriculture production can be especially appealing. One farmer in Lemoore, California admits that although "his family would rather be farming the ground[,]" because "it is going to be a battle for water every year[,] . . . solar is a realistic exit strategy."[149] Although economic considerations are vital to our capitalistic market, a court's guidance and direction in protecting agricultural land to the fullest extent possible is necessary to prevent abuse of Chapter 596 by those who have no duty to consider the social impacts of their actions.

B. Legislative Modification to the Renewable Energy Mandate

Although 16.5 million acres of agricultural land are contracted under the Williamson Act, this is only about one-third of the agricultural land in the state.[150] The remaining land not contracted under the Williamson Act is not subject to the "severely adverse soil conditions" or "significantly reduced agricultural productivity" requirement. This means that land classified as "prime," "unique," or "important"[151] could be removed from agricultural production and used for large-scale solar projects.

To protect these special agricultural lands from renewable energy development, the legislature should modify the Renewable Energy Mandate to include a prohibition against developing solar easements on all agricultural land designated as "prime farmland," "unique farmland," or "land of statewide importance," regardless of whether the land is enrolled in a Williamson Act contract. The legislature could do this by adding an addendum to the Renewable Energy Mandate that states:

> The goal of the Renewable Energy Mandate is to build renewable energy facilities in areas that will have the least amount of social and environmental impact. This goal is promoted by protecting land designated as "prime," "important," or "land of statewide importance." Therefore, it is prohibited that such land should be developed in a manner which changes the primary function of the land from agricultural production to renewable energy production.

149. Souza, *supra* note 14.

150. THOMPSON, *supra* note 16.

151. To refresh your memory on the definition of these terms, *see supra* notes 25–27.

1. The Current Lack of Regulations Regarding Renewable Energy Development

The Renewable Energy Mandate released in 2010 requiring thirty-three percent of energy sold in California to come from renewable energy sources by 2020,[152] is both inspiring and admirable—but lacks limitation. The problem is that the Mandate sets no restrictions or guidelines as to where such development should occur.[153] Speaking to this issue, the Defenders of Wildlife have voiced concern about the lack of a "statewide plan or policy . . . to direct projects to areas where land is marginal for farming and power transmission lines exist or can be easily routed . . . ."[154] Part of the dilemma is that "'[t]here's no consistent approach" county to county in deciding what gets approved on farmland . . . ."[155] Thus, while the Renewable Energy Mandate has given government and private entities every incentive to develop renewable energy sources as fast as possible in order to meet the Mandate, it has given them no direction or restriction as to where such projects should be located.

The lack of foresight and preplanning within the Renewable Energy Mandate is reminiscent of the Homestead Acts and other such settlement and development acts in which chaotic, disorganized development of the West led to land disputes and land use issues, which have never been fully resolved and potentially never will be.[156] The legislature and the courts should learn from this example and set forth an organized and intelligent development plan for renewable energy production. Such concerted action could help to avoid the same pitfall of the Homestead Acts and thus prevent unnecessary litigation and dispute.

2. Prohibiting Industrial-Scale Solar Development on Agricultural Land Designated as "Prime," "Unique," or "Land of Statewide Importance"

To avoid the situation of unchecked and haphazard development as described above, the California Legislature should amend the Renewable Energy Mandate to specifically exclude land designated as "prime farmland," "unique farmland," or "land of statewide importance" from being used for industrial-scale solar development. The idea of a prohibition against industrial-scale solar development is not meant to preclude agriculturalists from erecting solar panels on their buildings or on a portion of their land so as to supply the energy needs of the

152. Weintraub, *supra* note 1.

153. *See generally* 2011 Cal. Stat. ch. 1 (failing to mention any limits on development).

154. Tracie Cone, *Solar Development Absorbing Calif. Farmland*, ASSOC. PRESS (Feb. 2, 2013), *avaiable at* http://bigstory.ap.org/article/solar-development-absorbing-calif-farmland (on file with the *McGeorge Law Review*).

155. *Id.*

156. *Teaching with Documents: The Homestead Act of 1962*, NAT'L ARCHIVES, http://www.archives.gov/education/lessons/homestead-act/ (last visited Dec. 27, 2012) (on file with the *McGeorge Law Review*).

operation. Renewable energy production for operational purposes is, and should be, encouraged and rewarded.[157] What I am advocating should fall within the development prohibition is changing the primary purpose of "prime," "unique," or "important" agricultural land from an agricultural use to strictly solar energy generation. As one concerned agriculturist noted, "[t]here is a distinct difference between energy generated on-site for equipment operation and heating and cooling. This is different than power generated for sale and distribution on the electric grid."[158]

Because the 16.5 million acres of agricultural land contracted under the Williamson Act are only about one-third of the agricultural land in the state,[159] the remaining two-thirds of the land is not protected by the "severely adverse soil conditions" or "significantly reduced agricultural productivity" requirement.[160] This means that land classified as "prime," "unique," or "important" could be used for solar easements if permitting agencies are not guided by the legislature to prohibit development on such lands.

The danger to "prime," "unique," or "important" lands is not just prospective, it is a current and ongoing threat.

> According to John Gamper of the Ca[lifornia] Farm Bureau Federation, the proposals [for solar farm development] are so numerous "it's impossible to track them. I talked to one supervisor in Fresno County who said he has a solar guy in his office once a week. There are at least two dozen [proposals] in Tulare County right now, and they've been knocking on the doors in Madera, Merced, and San Benito."[161]

The developers making these proposals care little about whether the land is classified as "prime," "unique," or "land of statewide importance." If the land is cheap, flat, and the owner is willing to sell, there is no reason not to move forward with development.

Even "prime" agricultural land contracted under the Williamson Act is not necessarily safe. "Some public officials have opted to take land out of the Williamson Act to install solar [facilities], including Fresno County, where the board of supervisors recently voted to remove 90 acres of prime farmland from

157. "A 2009 U.S. Department of Agriculture survey found that California leads the nation in on-farm renewable power generation in all categories: wind turbines, methane digesters, and solar panels. But when it comes to solar panels, California farms account for about 25 percent of the total installed on farms nationwide." Katie Campbell, *More California Farmers Invest in Solar Power*, AGALERT (Sept. 7, 2011), http://agalert.com/story/?id=2481 (on file with the *McGeorge Law Review*).

158. *Id.*

159. SOLAR POWER AND THE WILLIAMSON ACT, *supra* note 20, at 1.

160. *See* discussion *supra* Part II.C. (explaining the statutory requirements for determining when land may be designated as having "severely adverse soil conditions" or "significantly reduced agricultural productivity").

161. SOLAR POWER: CA WILLIAMSON ACT UNDER SIEGE, *supra* note 15 (second alteration in original).

its Williamson Act contract."[162] If the legislature were to enact restrictions on development of such lands, this type of action could be precluded.

Therefore, the California Legislature should act to ensure the protection of "prime," "unique," and "important" lands by modifying the Renewable Energy Mandate to specifically forbid industrial-scale solar facilities from being built on land so designated. Such a prohibition would help to protect the future of California's agricultural economy and hopefully lead to the development of solar facilities in more sustainable places such as rooftops, brownfields, or areas otherwise not used for the vital purposes of feeding our country and supporting our economy.

V. CONCLUSION

The Renewable Energy Mandate and its thrust toward development of green energy resources—particularly in the emergent world of solar project development—is exciting, necessary, and long overdue. However, the push to develop renewable energy resources should not come at the expense of putting our economy and our domestic food supply at risk. The appeal of developing industrial-scale solar facilities on agricultural land is great.[163] With most of the work already done to clear these lands and open them to sunlight, developers are knocking down the doors to get their hands on this "prime" and relatively cheap land.[164]

However, converting agricultural land into industrial-scale solar facilities is unnecessary to meet the goals of the Renewable Energy Mandate and conflicts with California's goal of preserving this agricultural land for the benefit of future generations. Solar development on agricultural land runs the risk of permanent harm to the soil even if the panels are removed or, in the alternative, there is a risk of permanent development of the land if the solar panels are never decommissioned.[165] Further, solar development in cities within the context of rooftops is a more efficient method of developing solar power, as the energy produced does not have to travel so far to tie into the electrical grid.[166]

In order to preserve the goal of protecting California's agricultural land, California courts should narrowly interpret "severely adverse soil conditions"

162. Souza, *supra* note 14. This action by the Board has recently been challenged by the California Farm Bureau Federation, which filed a lawsuit against the Fresno County Board of Supervisors for "overstepping its authority when it authorized construction of a utility-scale solar power project on prime farmland." Dave Kranz, *Farm Bureau Sues Fresno County over Farmland Conversion*, CFBF.COM (Oct. 31, 2011), http://www.cfbf.com/news/showPR.cfm?rec=D709F38EF758B5066EF31B18039B8CE5&PRID=370 (on file with the *McGeorge Law Review*).

163. *See supra* notes 45–46 and accompanying text.

164. *See supra* note 159 and accompanying text.

165. *See* discussion *supra* Part III.B.1.

166. *See* discussion *supra* Part III.C.1.

and "significantly reduced agricultural productivity" as used in Chapter 596. Additionally, the Renewable Energy Mandate should be modified to specifically prohibit industrial-scale solar development on agricultural land that is designated as "prime farmland," "land of statewide importance," or "unique farmland." The California Legislature should think "smart from the start"[167] and plan solar development in the most sustainable way possible—a way that does not direct California's agricultural land toward an even more perilous future.

167. The phrase "smart from the start" is borrowed from Nevada's renewable energy program begun in 2008. *What Is "Smart From the Start?"*, NEV. WILDERNESS PROJECT, http://www.wildnevada.org/smartfromthestart.html (last visited Mar. 21, 2012) (on file with the *McGeorge Law Review*). The slogan is also used in the federal Wind Energy Initiative. Press Release, Kendra Barkoff & Nick Pardi, Salazar Launches 'Smart from the Start' Initiative to Speed Offshore Wind Energy Development off the Atlantic Coast (Nov. 23, 2010), *available at* http://pbadupws.nrc.gov/docs/ML1202/ML12026A740.pdf (on file with the *McGeorge Law Review*).