The DEIR's failure to provide adequate studies to understand the Project's impacts on critical environmental resources violates CEQA's informational purpose and prevents the public and decisionmakers from fully considering the impacts of the Project. CEQA Guidelines § 15144; *Vineyard*, 40 Cal.4th at 428; *Berkeley Keep Jets,* 91 Cal.App.4th at 1355-1356. 8-46

E. The DEIR Must Identify Likely Water Sources for the Project.

CEQA requires the County to identify in its DEIR the likely water sources for the Project, and analyze the "environmental impacts of exploiting those sources" and "how those impacts are to be mitigated." *Vineyard,* 40 Cal.4th at 421 (quote), 434, 440-441. "An EIR that neglects to explain the likely sources of water and analyze their impacts, but leaves long-term water supply considerations to later stages of the project, does not serve the purpose of sounding an environmental alarm bell." *Id.* at 441 (internal quotations and citation omitted).

> If the uncertainties inherent in long-term land use and water planning make it impossible to confidently identify the future water sources, [the] EIR may satisfy CEQA if it acknowledges the degree of uncertainty involved, discusses the reasonably foreseeable alternatives – including alternative water sources and the option of curtailing the development if sufficient water is not available for later phases – and discloses the significant foreseeable environmental effects of each alternative, as well as mitigation measures to minimize each adverse impact. 8-47

Id. 434 (emphasis in original).

Here, the DEIR fails to identify alternative water sources despite its facile assumption that the Project's water demands would be met – even during the existing drought. DEIR 4.13-19. Given California's extreme drought conditions and the fact that "2014 [is] projected to become the driest year on record,"[15] the Project's reliance on "water from the [Imperial Irrigation District] canal network" as its sole water source is not a certainty. Indeed, the DEIR confirms that climate change is likely to threaten inland water systems by decreasing precipitation, "severely reduc[ing] spring snow pack, [and] increasing the risk of summer water shortages." DEIR 4.5-10, 4.5-12 (quote). With these significant negative impacts to state waters, the availability of surface water for the Project is uncertain and the DEIR should have discussed alternative water sources and disclosed "the significant foreseeable environmental effects of each alternative, as well as mitigation measures to minimize each adverse impact." *Vineyard*, 40 Cal.4th at 434.

[15] Governor Brown issued an Executive Order declaring a state of emergency due to drought conditions in California on January 17, 2014 (http://ca.gov/Drought/news/story-27.html) and on April 25, 2014 Governor Brown issued a second Executive Order increasing the state's ability to manage water and requesting that Californians redouble their conservation efforts (http://gov.ca.gov/news.php?id=18496). Both are attached hereto as Exhibit 12.

Furthermore, the DEIR erroneously concludes that the Project will be "less than cumulatively considerable" in its impacts to water quality, quantity, and runoff. DEIR 4.11-48; *See also* DEIR 4.11-23 to 4.11-24, 4.11-30, 4.11-32, 4.11-35, 4.13-20 to 4.13-22. In reaching this conclusion, the DEIR takes several illogical leaps, and makes assumptions unsupported by data. This "Project, in combination with approved, proposed and reasonably foreseeable projects in the Salton Sea watershed . . . would result in changes in water quantity runoff patterns." DEIR 4.11-48. Changes in water quantity runoff patterns, combined with the severe impacts of California's unprecedented drought, will be cumulatively considerable and require mitigation, contrary to the DEIR's conclusions in violation of CEQA. CEQA Guidelines § 15144; *Vineyard*, 40 Cal.4th at 428; *Berkeley Keep Jets,* 91 Cal.App.4th at 1355-1356. The potential to cumulatively change runoff and drainage patterns is highlighted by the Project's potentially significant impacts, which include "earth disturbance and potential for erosion and loss of top soil" (DEIR 4.11-32), generation of "on-site runoff throughout all 17 CUPs" (DEIR 4.11-35), and potential flooding (DEIR 4.11-35, 4.11-44). The DEIR should have identified these cumulatively considerable impacts and discussed any potential mitigation that could lessen these significant impacts. Public Resources Code §§ 21002, 21002.1; Guidelines §§ 15121, 15126, 15126.2, 15126.4. 8-48

Thus the DEIR impermissibly understates the Project's impacts to water supply, water quality, and drainage patterns and must be revised. 8-49

F. The DEIR Fails to Adequately Analyze the Project's Direct, Indirect and Embedded Greenhouse Gas Emissions.

CEQA mandates that a DEIR address whether the Project could "[g]enerate GHG emissions, either directly or indirectly, that may have a significant impact on the environment." DEIR 4.5-15; *see also* CEQA Guidelines § 15064.4. Yet the DEIR fails to examine the indirect GHG emissions associated with Project construction. Under CEQA, a lead agency must "use its best efforts to find out and disclose all that it reasonably can," to demonstrate it has fully "considered the environmental consequences of [its] action." CEQA Guidelines § 15144; *Vineyard*, 40 Cal.4th at 428; *Berkeley Keep Jets,* 91 Cal.App.4th at 1355-1356; *Citizens to Preserve the Ojai*, 176 Cal.App.3d at 431. As discussed below, the DEIR's estimate of the Project's construction emissions vastly understates the Project's far greater actual emissions because the County failed to include a "life-cycle" analysis of the CO_2 emissions necessary for Project construction and generation. Such an analysis is necessary where, like here, the industry is so small and specialized that construction of the Project would lead to substantial production of panels that would not occur but for the Project. *Save the Plastic Bag Coalition v. City of Manhattan Beach* (2011) 52 Cal.4th 155. 8-50

Therefore, the County must assess the Project's substantial *embedded* greenhouse gas emissions such as those emissions associated with production of the materials used to construct the Project, like PV panels, frames and support structures. One such life-cycle analysis of a solar 8-51

installation in Tucson, Arizona, examined the emissions associated with the energy required to construct and operate the facility, using the average fuel mix and power-plan efficiency for the United States.[16] The Tucson study addressed the GHG emissions of "carbon dioxide, nitrous oxide, methane, sulfur hexafluoride, PFCs, and CFCs" which it expressed in kilograms of CO_2 equivalent. *Id.* For the solar modules examined in the study, the primary sources of GHG emissions were in producing the solar panels and frames, at over 25 kilograms of CO_2 equivalent per square meter of solar panels produced. Tucson Study, figure 4. In addition, the frames for the solar panels produced approximately 23 kilograms of CO_2 equivalent per square meter of frame material. *Id.*[17] The frames for the PV modules created 184 metric tons of CO_2 equivalent per peak MW. *Id.*, Table 2. When multiplied by the Project's 250 MW (2.0-1), this totals 46,000 tons CO_2 equivalent emissions for the Project's frames alone. Applying the Tucson Study's figures for the junction boxes, conduits, inverters, PV module interconnections, and other components – including the frames – to the Project, *the DEIR has failed to account for as many as 97,000 metric tons of CO_2 equivalent emissions associated with Project construction.* DEIR 4.5-18 to 4.5-20; Tucson Study, Table 2 ((204+184)x250=97,000). In the technical data accompanying DEIR Appendix C, it is clear that the modeling failed to account for these significant emissions. DEIR Appendix C: Air Quality Impact Analysis, pp. 26-48. These unaccounted for emissions vastly exceed the metric ton 10,000 threshold of significance that the DEIR discusses, and contradict the County's determination that the Project's GHG emissions would be less than significant. DEIR 4.5-20.

8-51 cont.

The DEIR compounds its failure to examine the full life-cycle GHG emissions associated with the Project by artificially dispersing construction-stage emissions over a 30-year period instead of addressing them as they occur. *E.g.*, DEIR 4.5-16 to 4.5-18. AB 32 mandates 1990 levels by 2020, not more than a decade later. While amortized GHG emission estimates may be useful for certain considerations, the DEIR's failure to include an estimate of total GHG emissions by year fails CEQA's informational requirement and leaves the public and decisionmakers to speculate about the Project's impacts. DEIR 4.5-17 to 4.5-20. Contrary to AB 32's time-sensitive mandates, the County has improperly used an accounting method that understates the Project's significant short-term environmental harms and makes it nearly impossible for the public and decisionmakers to determine if the Project will exceed thresholds of significance. CEQA Guidelines § 15144; *Vineyard*, 40 Cal.4th at 428; *Berkeley Keep Jets,* 91 Cal.App.4th at 1355-1356; *Citizens to Preserve the Ojai*, 176 Cal.App.3d at 431.

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[16] J. M. Mason, V. M. Fthenakis, T. Hansen & H.C. Kim, 2006, "Energy Pay-Back and Life Cycle CO_2 Emissions of the BOS in an Optimized 3.5 MW PV Installation," *Progress in Photovoltaics Research and Applications*, 14:179-190 (the "Tucson Study"), as downloaded from http://www.bnl.gov/pv/files/pdf/abs_197.pdf, at p. 7, attached hereto as Exhibit 13.

[17] The Tucson study utilized a number of Life Cycle Inventory databases, including: (1) Franklin Associates (http://www.fal.com/lifecycle-services.html#lca); (2) Ecoinvent (http://www.ecoinvent.org/); and, (3) the National Renewable Energy Laboratory (http://www.nrel.gov/lci/). Tucson Study, pp. 6, 13.

The DEIR again fails as an informational document because it omits any computation of the change in GHG emissions from the soil on the Project site resulting from the Project's conversion of the land from agricultural production to the proposed solar farm or whether the electricity produced by the Project would actually supplant electricity currently generated by fossil fuel-based systems. DEIR 4.5-17 to 4.5-20. Additionally, it ignores significant Nitrogen Dioxide (NO_x) threshold violations, and instead focuses the text of the DEIR on Carbon Dioxide equivalent. DEIR Appendix C: Air Quality Impact Analysis, pp. 31, 35, *compared with* DEIR 4.5-17 to 4.5-20. As the technical Air Quality Analysis admits, the Project's construction with exceed NO_x thresholds, yet the DEIR ignores this fact, in violation of CEQA. CEQA Guidelines § 15144; *Vineyard*, 40 Cal.4th at 428; *Berkeley Keep Jets,* 91 Cal.App.4th at 1355-1356; *Citizens to Preserve the Ojai*, 176 Cal.App.3d at 431. 8-53

III. CONCLUSION

The Wistaria Solar Project's industrial use of lands designated "Agriculture" is specifically forbidden by the Imperial County General Plan. Therefore the County may not approve the Project. Despite this the County decided to proceed with considering the Project for approval, including preparing a DEIR. While Backcountry maintains that the County may not approve the Project under the current General Plan and in violation of the Williamson Act, it nonetheless provides the foregoing comments on the seriously flawed DEIR. Because the DEIR fails to fully analyze numerous significant environmental impacts, fails to accurately describe the Project and fails to discuss in detail a distributed generation alternative, it violates CEQA. The County must overhaul the DEIR to address the significant deficiencies identified above. 8-54

Respectfully submitted,

Stephan C. Volker
Attorney for Backcountry Against Dumps, Donna Tisdale, Carolyn Allen, Danny Robinson and Robco Farms, Inc.

SCV:taf

LIST OF EXHIBITS

1. John M. Lowrie, California Department of Conservation, Letter to Armando Villa re: Cancellation of Land Conservation (Williamson Act) Contract No. 2001-00706, November 1, 2011;

2. Dan Otis, California Department of Conservation, Letter to Patricia Valenzuela re: Notice of Preparation for a DEIR for Imperial Solar Energy Center South, July 16, 2010;

3. Connie L. Valenzuela, Imperial County Agricultural Commissioner, Letter to Armando Villa re: CUP 10-0035 8 Minutenergy Renewables, LLC, Calipatria Solar Farm II, February 25, 2011;

4. Summit Blue Consulting LLC, April 1, 2008, "Renewable Energy Feasibility Study Final Report," prepared for Imperial Irrigation District;

5. U.S. Department of Energy, February 2012, "SunShot Vision Study," Chapter 4;

6. San Diego Gas & Electric Company, "Overview – NEM Cap" website screenshot, available at: https://www.sdge.com/clean-energy/net-energy-metering/overview-nem-cap;

7. Imperial Irrigation District, "Net Energy Metering" website screenshot, available at: http://www.iid.com/index.aspx?page=583;

8. Seeking Alpha, April 22, 2011, "NRG Energy's CEO Discusses Q4 2010 Results – Earnings Call Transcript;"

9. CEC, April 2013, "Renewables Portfolio Standard Eligibility Guidebook," Seventh Edition, available at: http://www.energy.ca.gov/2013publications/CEC-300-2013-005/CEC-300-2013-005-ED7-CMF.pdf

10. Infoscape.com, June 9, 2014, "Did the Glint of a Few Million Solar Panels Cause a Military Jet to Crash in California?," available at: http://infoscape.com/did-the-glint-of-a-few-million-solar-panels-cause-a-military-jet-to-crash-in-california/;

11. National Fish and Wildlife Forensics Laboratory, Rebecca A. Kagan, Tabitha C. Viner, Pepper W. Trail, and Edgard O. Espinoza, *Avian Mortality at Solar Energy Facilities in Southern California: A Preliminary Analysis*, available at:

here: http://docketpublic.energy.ca.gov/PublicDocuments/09-AFC-07C/TN201977_20140407T161504_Center_Supplemental_Opposition_to_Motion.pdf;

12. Governor Edmund G. Brown, Press Release and Executive Orders Re: Drought State of Emergency, January 17, 2014 and April 25, 2014;

13. J. M. Mason, V. M. Fthenakis, T. Hansen & H.C. Kim, 2006, "Energy Pay-Back and Life Cycle CO_2 Emissions of the BOS in an Optimized 3.5 MW PV Installation," *Progress in Photovoltaics Research and Applications*, 14:179-190.

RESPONSE TO COMMENT LETTER 8

Commenter: Stephan C. Volker, Attorney for Backcountry Against Dumps, Donna Tisdale, Carolyn Allen, Danny Robinson and Robco Farms, Inc. on the Draft Environmental Impact Report for the Wistaria Ranch Solar Energy Center Project, SCH No. 2 13091084

Date of Letter: October 10, 2014

Response to Comment 8-1: The comment provides introductory remarks regarding submittal of comments on the proposed Wistaria Ranch Solar Energy Center Draft EIR. This comment does not address the adequacy of the analysis in the EIR. No further response is required.

Response to Comment 8-2: The comment provides a brief description of the Project as well as the acreages of Prime Farmland, Farmland of Statewide Importance and Unique Farmland and the acreage of the Project site currently under Williamson Act Contract. This comment reiterates information in the Draft EIR and does not address the adequacy of the environmental analysis in the EIR. See Response to Comments 7-7 and 7-8. No further response is required.

Response to Comment 8-3: The comment quotes multiple excerpts from the Draft EIR regarding conversion of agricultural land on which the Project is proposed. Although this comment reiterates information in the Draft EIR, the commenter also includes his own statements not part of the EIR, such as "This fertile farmland is irreplaceable, and the food and fiber it produces year in and year out for Americans throughout our country are of inestimable value to present and future generations; or the Project would "preclude agricultural crop production…for up to the 30 year maximum life of the CUP's" to which the commenter adds "if not permanently…".

The Chapter 2.0, Project Description, of the Draft EIR cites in multiple locations that the maximum life of the Project would up to 30 years (pages 2.0-34, 2.0-56 and 2.0-67). Section 4.2, Land Use, notes throughout the analysis that the Project would result in a "temporary conversion" of agricultural lands to a non-agricultural land use (i.e. industrial solar use) (Draft EIR pages 4.2-5, 4.2-9, 4.2-22 and 4.2-34).

Response to Comment 8-4: The comment asserts that the Project would cause significant additional impacts to agriculture and the agricultural economy countywide by reducing demand for agriculture-serving businesses and interfering with one of the airports servicing agricultural spraying operations in the County. These assertions are not further substantiated in this introductory comment, nor do they address the adequacy of the environmental analysis in the EIR. No further response is required.

Response to Comment 8-5: The comment expresses opposition to the Project asserting that it would have a significant environmental, agricultural and economic impacts and that industrial scale energy generation and transmission uses are forbidden by the Imperial County General Plan. These assertions regarding significant environmental, agricultural and economic impacts are not substantiated in this introductory comment. With regard to the assertion that industrial scale energy generation and transmission uses are forbidden by the Imperial County General Plan, no evidence is provided as part of the comment.

As stated on page 4.2-5 of the Draft EIR, the General Plan land use designation "Agriculture" applies to all of the 32 solar field site parcels. These parcels are zoned A-2, A-2-R and A-3. In addition, as noted in Table 4.2-3, Summary of Solar Field Site and Transmission Line Parcels Zoning, on page 4.2-122 of the Draft EIR (copied below), solar projects and transmission lines are conditionally allowed uses.

TABLE 4.2-3
SUMMARY OF SOLAR FIELD SITE AND TRANSMISSION LINE PARCELS ZONING

Zoning	Purpose	Uses Allowed with a CUP
General Agriculture (A-2)	To designate areas that are suitable and intended primarily for agricultural uses (limited) and agricultural related compatible uses.	• Electrical generation plants (less than 50-MW) (90508.02.Y) • Electrical Power Generating Plant excluding nuclear or coal fired. (90508.02.Z) • Electrical substations in an electrical transmission system (500-kV/230-kV/161-kV). (90508.02.AA) • Facilities for the transmission of electrical energy (100-200 kV). (90508.02.CC) • Major facilities relating to the generation and transmission of electrical energy, provided such facilities are not, under State or Federal law, to be approved exclusively by an agency or agencies of the state and/or federal governments and provided that such facilities shall be approved subsequent to coordination and review with the IID for electrical matters. (90508.02.UU). • Solar energy electrical generator (90508.02.FFF).
General Agriculture Rural (A-2-R)	To designate areas that are suitable and intended primarily for agricultural uses (limited) and agricultural related compatible uses.	• Electrical generation plants (less than 50-MW) (90508.02.Y) • Electrical Power Generating Plant excluding nuclear or coal fired. (90508.02.Z) • Electrical substations in an electrical transmission system (500-kV/230-kV/161-kV). (90508.02.AA)
Heavy Agriculture (A-3)	To designate areas that are suitable for agricultural land uses; to prevent the encroachment of incompatible uses onto and within agricultural lands; and to prohibit the premature conversion of such lands to non-agricultural uses	• Transmission lines, including supporting towers, poles microwave towers, utility substations. (90509.01.T) Note that this particular use is allowed by right without a CUP. • Solar energy plants (90509.02.CCC)

TABLE 4.2-3
SUMMARY OF SOLAR FIELD SITE AND TRANSMISSION LINE PARCELS ZONING

Zoning	Purpose	Uses Allowed with a CUP
		• Major facilities relating to the generation and transmission of electrical energy, provided such facilities are not, under State or Federal law, to be approved exclusively by an agency or agencies of the state and/or federal governments and provided that such facilities shall be approved subsequent to coordination and review with the IID for electrical matters. (90509.02.QQ)

Section 4.2, Land Use of the Draft EIR (pages 4.2-5 and 4.2-6) go on to explain:

> "The proposed Project does not remove land from the Agricultural land use designation even though the proposed Project involves a temporary conversion of agricultural use to an urban industrial solar generation use. Per Title 9, Division 5, Section s 90508.02 and 90509.02 of the Land Use Ordinance, solar energy electrical generators, electrical power generating plants, substations, and facilities for the transmission of electrical energy are allowed as conditional uses in Agricultural zones.
>
> The Imperial County General Plan balances agriculture and alternative energy uses. In 2006, the County adopted the General Plan's Geothermal/Alternative Energy and Transmission Element. This Element serves as the primary policy statement by the Board of Supervisors for implementing development policies for alternative energy land uses in Imperial County, regardless of the land use category designated in the General Plan. Section I(C) explains that the County adopted the Geothermal/Alternative Energy and Transmission Element after determining that the benefits of alternative energy development in the County include:
>
> 1. Fiscal benefit of expanded property tax revenues;
> 2. Fiscal benefit of sales tax revenues from purchase of goods and services;
> 3. Royalty and lease benefits to local landowners and County.
> 4. Social and fiscal benefits from increased economic activity and employment opportunities;
> 5. Improvements in technology to reduce costs of electrical generation;
> 6. Potential air quality improvement by displacement of fossil-fueled generated electricity with geothermal/alternative energy power which does not add to the Greenhouse effect;
> 7. Contributes toward meeting the State of California's Renewables Portfolio Standard (RPS)."

In view of these benefits, the County amended the General Plan to ensure that such projects would have a place in the County and the Goals, Policies and Objectives that follow reflect the County's efforts to balance agricultural and renewable energy uses." See also Response to Comment 7-13.

Response to Comment 8-6: The comment encourages Imperial County to adopt programs to develop or incentivize the development of distributed PV generation projects near energy demand centers in already disturbed areas as an alternative to the proposed Project. The comment also contends that this alternative was not fully analyzed or considered as environmentally superior. The comment suggesting that the County adopt programs to incentivize distributed development is noted for the decision-makers' consideration.

The Distributed Generation Alternative was considered on pages 6.0-3 and 6.0-4 of the Draft EIR. Some of the reasons for the infeasibility of the alternative were identified noting "Under CEQA, the definition of 'feasible' includes actions that are capable of being implemented within a reasonable period of time." Acquisition of the 25,000 rooftops needed to generate 250 MW (assuming 10 kW generated per rooftop) would take many years to acquire in addition to the decline in homeowner tax incentives for distributed solar.

See also Response to Comments 8-16 through 8-24.

Response to Comment 8-7: The comment states that the Draft EIR fails to fully analyze the Project's significant impacts to water resources, greenhouse gas emissions, biological resources, agricultural and avian safety. This comment is a prelude to specific assertions regarding each of the issues areas identified. Water resource are addressed in Response to Comment 8-46; GHG emissions are addressed in Response to Comment 8-50, 8-51, 8-52 and 8-53; biological resources and avian safety are addressed in Response to Comment 8-32, 8-33, 8-34, 8-35, 8-36, 8-37, 8-38, 8-39, 8-40, 8-41, 8-42, 8-43, 8-44 and 8-45; agricultural resources are addressed in Response to Comment 8-5, 8-8, 8-9, 8-10 and 8-11.

Response to Comment 8-8: The comment contends the proposed Project is inconsistent with the County General Plan Land Use Element, specifically stating that the Project is "forbidden" by the General Plan. As previously noted in Response to Comment 8-5, the proposed solar generation and transmission uses are consistent with the County General Plan and are conditionally permitted uses under the County's Land Use Ordinance. See Response to Comment 8-9, 8-10, 8-11, 8-12 and 8-13 for further discussion of the Project's consistency with the General Plan.

This comment also refers to the court ruling in *Neighborhood Action Group v. County of Calaveras* (1984) 156 Cal.App.3d 1176, 1184. In that case, Calaveras County approved a CUP for a proposed project, but the county did not have a valid general plan (i.e., the court found the general plan did not comply with State law). In turn, this invalidated Calaveras County's issuance of a CUP for the proposed project. These circumstances do not apply to Imperial County's proposed issuance of 16 CUPs for the Wistaria Ranch Solar Energy Center. Unlike in *Neighborhood*, Imperial County's General Plan meets State requirements and is legally valid. As such, no defect exists that would affect the County's authority to issue CUPs for the proposed Wistaria Ranch Solar Energy Center, consistent with the underlying zoning designation (A-2 - General Agriculture; A-2-R - General Agriculture Rural; A-3 - Heavy Agriculture) for the Project site.

One of the court's primary considerations in the *Neighborhood* case was whether the County of Calaveras had the authority to issue a CUP if it had failed to adopt a general plan containing elements required by State law that were relevant to the uses authorized by the permit. The County of Imperial's General Plan Land Use Element recognizes solar energy as being consistent

with the County's overall goals and energy policies. The County of Imperial's General Plan Land Use Element also recognizes other allowable renewable energy types such as wind-driven electrical generation, geothermal, and bio-mass energy. In addition, the County of Imperial's General Plan recognizes facilities for the transmission of electrical energy.

As summarized in the Goals and Objectives of the Geothermal and Transmission Element of the Imperial County General Plan (Goal 1), "...The County of Imperial supports and encourages the full, orderly, and efficient development of geothermal/alternative energy resources while at the same time preserving and enhancing where possible agricultural, biological, human, and recreational resources...." The Geothermal and Transmission Element of the Imperial County General Plan further states (Objective 1.1), "...Design for the co-location of energy facilities through the designation of...energy park zones to increase certainty and facilitate power generation development and to provide for efficient use of land resources ...."

Pursuant to Section 90508.02 of the County's Land Use Ordinance, "Solar energy electrical generator," "Electrical power generating plant," "Major facilities relating to the generation and transmission of electrical energy," and "Resource extraction and energy development," are permitted uses in the A-2 zone subject to approval of a CUP.

The Agricultural Element as well as the Alternative Energy Element of the General plan provide that industrial uses, such a temporary renewal energy projects, are consistent with on-going Agricultural uses. Land Use Element IV C1 and conditionally compatible uses with a CUP. County Ordinance 90508.2 and 90509.2 authorize the issuance of CUP for major electrical generation facilities in agricultural areas. Solar power plants are treated differently than heavy industrial uses by implementing zoning through use of such a CUP. In making the findings for such a CUP, the Board must find that the use proposed is compatible with agriculture in surrounding areas, will not have an adverse impact on agriculture, and will not lead to its premature elimination. In fact, the proposed Project is located in an area where there already are surrounding solar projects.

Based on the goals and objectives of the General Plan and relevant provisions of the County's Land Use Ordinance, with the approval of all Project entitlements, the proposed Project would be an allowable use within and consistent with the existing land use and zoning designations for the solar field site parcels and would promote Imperial County's renewable energy policies.

Response to Comment 8-9: The comment asserts that the Imperial County General Plan specifically forbids the proposed solar uses within the "Agriculture" plan designation. Inherent in the commenter's conclusion is an interpretation of the General Plan goals, policies, and objectives that prohibits, in all instances, non-agricultural related uses on lands designated for agriculture.

Generally, "because policies in a general plan reflect a range of competing interests, the governmental agency must be allowed to weigh and balance the plan's policies when applying them, and [the agency] has broad discretion to construe its policies in light of the plan's purpose." *Pfeiffer v. City of Sunnyvale City Council* (2011) 200 Cal.App.4th 1552. "An action, program, or project is consistent with the general plan if, considering all its aspects, it will further the objectives and policies of the general plan and not obstruct their attainment. State law does not require perfect conformity between a proposed project and the applicable general plan ... [because] it is nearly impossible for a project to be in perfect conformity with each and every policy set forth in the applicable plan ... It is enough that the proposed project will be compatible with the objectives, policies, general land uses and programs specified in the applicable plan." *Id*. (internal quotations and citations omitted). Thus, the County has the authority to interpret the meaning of its General Plan and determine whether the proposed project is consistent.

The County's General Plan includes a variety of goals, policies, and objectives that are implicated by the proposed Project and must, in some instances, be balanced against each other. The General Plan thus cautions against its Goals and Policies being interpreted as doctrine:

> Imperial County's Goals and Objectives are intended to serve as long-term principles and policy statements representing ideals which have been determined by the citizens as being desirable and deserving of community time and resources to achieve. The Goals and Objectives, therefore, are important guidelines for agricultural land use decision making. It is recognized, however, that other social, economic, environmental, and legal considerations are involved in land use decisions and that these Goals and Objectives, and those of other General Plan Elements, should be used as guidelines but not doctrines. (General Plan Agricultural Element, page 29 [Section III.A Preface].)

Turning to specific policies implicated by the proposed Project, the County General Plan actively promotes both alternative energy and opportunities for economic growth. For example, Goal I of the Geothermal/Alternative Energy and Transmission Element ("Alternative Energy Element") provides that the County "supports and encourages the full, orderly, and efficient development of geothermal/alternative energy resources while at the same time preserving and enhancing where possible agricultural, biological, human, and recreational resources

In addition to the goals and objectives in the Alternative Energy Element promoting alternative energy in the County, the General Plan also recognizes the need for the County to promote diverse economic uses. For example, Goal 2 of the Land Use Element states that the County should "[d]iversify employment and economic opportunities in the County while preserving agricultural activity," and Goal 3, Objective 3.2 of the Land Use Element recognizes the need to "[p]reserve agricultural and natural resources *while promoting diverse economic growth* through sound land use planning." (General Plan, Land Use Element, page 38.) Thus, while there is no question that promoting and preserving agricultural uses is an important part of the County's vision, it is by no means the *sole* policy, goal, or objective of the County General Plan, thus requiring the County's decision-makers to balance various interests when making land use decisions.

The Imperial County General Plan contemplates the use of agricultural lands for other uses, and specifically provides that the evaluation and approval of those uses will occur through the implementation of zoning and the conditional use permit (CUP) review process. Specifically, the Land Use Element provides that "[e]lectrical and other energy generating facilities are heavy industrial uses, except geothermal, hydroelectric, wind and solar facilities may be regulated differently than other types of power plants by implementing zoning." (General Plan Land Use Element, page 46.) Further, the Land Use Compatibility Matrix in the General Plan provides that industrial uses are permissible on lands zoned A-2 with a CUP. (General Plan, Land Use Element, Table 4, page 64.) Thus, pursuant to the General Plan, approval of any of the proposed 16 CUPs (13-0036 thru 13-0046 and 13-0048 thru 13-0052), the proposed Project would be an allowable use within the existing land use and zoning designations on the 29 parcels that comprise the proposed Project site.

Further, while the Land Use Element provides that agriculture is the principal and dominant use for agriculture-designated lands, it expressly allows non-agricultural uses on agricultural land provided the project proponent demonstrates that the non-agricultural use (1) "does not conflict with agricultural operations and will not result in the premature elimination of such agricultural operations" and (2) meets the requirement that "no use should be permitted which would have

a significant adverse effect on agricultural production." (General Plan Land Use Element, page 48 [Section IV.C.I].)

The County has established a permitting process which ensures that the potential effects of using Agriculture-designated lands for solar projects are thoroughly considered. Section s 90508.01 and 90508.02 of the County's Land Use Ordinance identify the permitted and conditional uses within the A-2, A-2-R and A-3 zoning designations. The Project site parcels include these three zones. These zoning designations require a CUP for solar energy facilities (Table 4.2-3 of the Draft EIR, page 4.2-21). The discretionary and conditional nature of a CUP process also triggers review under CEQA.

Lastly, it is important to note that utility scale solar developments and transmission lines may be allowed pursuant to the General Plan and Board of Supervisors' Implementing Policies discussed on page 4.9-5 of the Draft EIR.

Based on the above, the County would be within its discretion to determine that the proposed Project is consistent with the various policies, goals, and objectives of the Imperial County General Plan promoting alternative energy and economic diversity.

Response to Comment 8-10: The comment asserts the proposed Project will terminate and prevent all agricultural use on the Project site parcels for up to 30 years. The comment also cites letters from the Department of Conservation (DOC) for other projects.

Additionally, the commenter provides letters from the DOC regarding 8Minute Energy and Imperial Solar Energy Center South, not for the proposed Project. However, DOC has provided a favorable letter for this project. Section 4.9, Agricultural Resources of the Draft EIR (pages 4.9-2 and 4.9-3) analyzes the "temporary conversion" of agricultural lands for the life of the Project. The analysis included a lengthy discussion of the 2010 DOC letter for the Wistaria Ranch Solar Energy Center providing guidance regarding the potential impacts of solar projects on agricultural land and resources. The DOC "considers the construction of a solar facility that removes and replaces agriculture on agricultural lands to have a significant impact on those agricultural lands…While solar panels may be an allowed use under the county zoning and General Plan, they can and should be considered an impact under CEQA to the project site's agricultural resources" (Otis 2010).

The letter goes on to state that "Although direct conversion of agricultural land is often an unavoidable impact under the California Environmental Quality Act (CEQA) analysis, mitigation measures must be considered…However, reduction to a level below significance is not a criterion for mitigation. Rather, the criterion is feasible mitigation that lessens a project's impacts. Pursuant to CEQA Guideline Section 15370, mitigation includes measures that 'avoid, minimize, rectify, reduce or eliminate, or compensate' for the impact. All measures allegedly feasible should be included in the Draft EIR. Each measure should be discussed, as well as the reasoning for selection or rejection. A measure brought to that attention of the Lead Agency should not be left out unless it is infeasible based on its elements. Finally, when presenting mitigation measures in the Draft EIR, it is important to note that mitigation should be specific, measurable actions that allow monitoring to ensure their implementation and evaluation of success. A mitigation consisting only of a statement of intention or an unspecified future action may not be adequate pursuant to CEQA."

The DOC letter also identified project impacts on agricultural land as follows:

> *When determining the agricultural value of the land, the value of a property may have been reduced over the years due to inactivity, but it does not mean that there*

is no longer any agricultural value. The inability to farm the land, rather than the choice not to do so, is what could constitute a reduced agricultural value. The Division recommends the following discussion under the Agricultural Resources Section of the Draft EIR:

- *Type, amount, and location of farmland (Prime, Unique, and Farmland of Statewide Importance) conversion that may result directly and indirectly from project implementation and growth inducement, respectively.*
- *Impacts on current and future agricultural operations; e.g., land-use conflicts, increases in land values and taxes, etc.*
- *Incremental project impacts leading to cumulative impacts on agricultural land. This would include impacts from uses allowed with the proposed solar facility, as well as impacts from past, current and likely projects in the future.*

Under California Code of Regulations Section 15064.7, impacts on agricultural resources may also be both quantified and qualified by use of established thresholds of significance. As such, the Division has developed a California version of the USDA Land Evaluation and Site Assessment (LESA) Model. The California LESA model is a semi-quantitative rating system for establishing the environmental significance of project-specific impacts on farmland. The model may also be used to rate the relative value of alternative project sites.

The DOC letter also identified solar facility mitigations and Reclamation Plan to address temporary displacement of agricultural resources. Specific to these issues, the DOC letter states:

If the solar facility is considered a temporary displacement of agricultural resources, then there should be some assurances that it will be temporary and will be removed in the future. Hence the need for a reclamation plan. The loss of agricultural land (even temporary) represents a reduction in the State's agricultural land resources. The Division has witnessed the negative impacts of non-operational wind power generation facilities and related equipment that have been left to deteriorate on agricultural land. For that reason, the Division offers a variety of permitting conditions the County might use for energy projects on agricultural land:

- *Require a reclamation plan suited for solar facilities, based on the principles of the Surface Mining and Reclamation Act (SMARA). As part of this plan, a performance bond or other similar measures may be used.*
- *A typical requirement would be for the soil to be restored to the same condition it was in prior to the solar facility's construction (i.e. pre-Project soil conditions). Whatever project-related material have been brought in, or changes made to the land (i.e. graveling, roads, compaction, equipment), would be removed once he solar facility (or portions of) is on longer active.*
- *Solar project are generally considered to be "temporary." The County could require that a new permit must be applied for after a certain period of time. Because this is a new and unprecedented use of agricultural land, this would allow the county more flexibility in determining what conditional uses or conditions may be most appropriate in the longer term.*

- *Require permanent agricultural conservation easements of land of at least equal quality and size as partial compensation for the direct loss of agricultural land.*
- *Conservation easements will protect a portion of those remaining agricultural land resources and lessen project impacts in accordance with California Environmental Quality Act (CEA Guidelines Section 15370. The Department highlight this measure because of its acceptance and use by lead agencies as an appropriate mitigation measure under CEQA and because it follows and established rationale similar to that of wildlife habitat mitigation.*

Mitigation via agricultural conservation easements can be implemented by at least two alternative approaches: the outright purchase of easements or the donation of mitigation fees to a local, regional or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural conservation easements. The proposed conversion of agricultural land should be deemed an impact of at least regional significance. Hence the search for replacement lands can be conducted regionally or statewide, and need not be limited strictly to lands within the project's surround area. Mitigation for the loss of Prime Farmland is suggested at a 2:1 ratio due to its importance in the State of California. The use of conservation easements is only one form of mitigation and any other feasible mitigation measures should also be considered. Mitigations for temporary solar projects can also be flexible, especially in cases where there is a reclamation plan in place that requires the land to be returned to an agricultural state." (emphasis added.)

Consistent with the DOC's identified solar facility mitigations and Reclamation Plan to address temporary displacement of agricultural resources, pages 4.9-47 thru 4.9-49 of the Draft EIR include mitigation measure MM 4.9.1a (Agricultural and Other Benefit Payment) which identifies three options to mitigate for temporary conversion of non-prime farmland and four options to mitigate for temporary conversion of prime farmland. In addition, mitigation measure MM 4.9.1b Reclamation/Decommissioning Plan and Security (Draft EIR page 4.9-51) requires the Applicant to prepare a reclamation plan and pay the associated security to insure its implementation.

Response to Comment 8-11: The comment asserts that the proposed Project would impede agricultural operations on surrounding lands citing potential warming of the air (heat dams) and making aerial and ground applications more difficult as well as creating more dust.

As noted in Table 4.9-1 on page 4.9-8 of the Draft EIR, "the proposed Project is almost entirely surrounded by solar facilities in various states of completion." This is portrayed graphically in Figure 3.0-1, Cumulative Projects Map, on page 3.0-10 of the Draft EIR [Note: This graphic has been revised to reflect the Preferred Project in Chapter 4.0, Errata of this Final EIR]. In addition, the text notes that County has directed solar development to this area of the County; solar energy generation facilities are conditionally allowed on lands zoned for Agriculture; the presence of solar development would not interfere with or preclude production on adjacent agricultural lands because it is subject to the County's Right to Farm Ordinance; and the Applicant is required to prepare and comply with site-specific pest, weed and dust control plans. In addition, pages 4.9-16 and 4.9-17 of the Draft EIR state: "The proposed Project, as a 'solar energy electrical generator' is an allowed use within zones A-2, A-2-R and A-3 with approval of a Conditional Use Permit."

Pages 4.9-16 and 4.9-17 of the Draft EIR also describe the Right to Farm Ordinance: "Division 2, Title 6 of the Codified Ordinances of the County of Imperial, contains the Right to Farm Ordinance. The Ordinance states that 'It is the declared policy of this County to enhance and encourage

agricultural operations within the County.' It further outlines and clarifies 'circumstances under which agricultural operations may be considered a nuisance' in order to promote a good neighbor policy and protect existing agricultural operations functioning in accordance "with proper and accepted customs and standards as established and followed by similar agricultural operations in Imperial County." The proposed Project would be subject to the Right to Farm Ordinance relative to nuisance issues. Finally, until the initiation of any construction within a single CUP, the area may continue to be farmed at the discretion of the farmer to avoid the premature elimination of agricultural activities. As with any farming operating, the farmer also may determine to enter an IID fallowing program, or not to farm the property for any reason.

To summarize, the proposed Project is almost entirely surrounded by solar facilities in various states of completion. Given that the County has directed solar development to this area of the County; that solar energy generation facilities are conditionally allowed on lands zoned for Agriculture; and the presence of solar development would not interfere with or preclude production on adjacent agricultural lands because it is subject to the County's Right to Farm Ordinance; and that solar projects are required to prepare and comply with site-specific pest, weed and dust control plans.

The issue of heat dams has been previously addressed. Refer to Response to Comment 7-19.

The issue of aerial application is addressed as part of Response to Comment 8-30, below.

The issue of dust creation is addressed in Section 4.4, Air Quality of the Draft EIR. Mitigation measures are identified to address air quality pollutants and dust emissions associated with Project construction and operation. Draft EIR pages 4.4-27 thru 4.4-29 identify the following measures: Regulation VIII, Fugitive Dust Rules for reduction of Project-generated PM_{10} emissions (MM 4.4.1a); ICAPCD Air Quality CEQA Handbook's mandatory Standard, Discretionary and Enhanced air quality measures (MM 4.4.1b); use of construction equipment using diesel engines with certified NO_x emissions rated as EPA Tier 3 or better (MM 4.4.1c); the ICAPCD Policy 5 in lieu fee program to offset project-generated NO_X emissions (MM 4.4.1d).

Response to Comment 8-12: The comment contends that the Project could reduce employment, income, sales and tax revenue in the County. The comment also cites a 2011 letter from the Imperial County Agricultural Commissioner regarding a different project. The assertions are not further substantiated quantitatively. The possible socio-economic impacts of the Project are discussed under sub-section 7.2 Socioeconomic Impacts in Chapter 7.0, Other CEQA Considerations (Draft EIR pages 7.0-15 thru 7.0-18) and in Section 4.9, Agricultural Resources.

The comment also asserts that as more agricultural land is converted to non-agricultural uses, more agriculture servicing businesses will be put out of business. A footnote is provided that describes alleged impacts to the Johnson Brothers Airstrip stating that "the Wistaria Solar Project could disrupt the functioning of the lone local airport servicing agricultural spraying operations by putting local pilots at significant risk due to the glint and glare from the Project solar panels.'' No evidence if provided to substantiate this statement. The Draft EIR Page 2.0-34 of the Draft EIR states "Typical CPV modules are non-reflective." Moreover, Section 4.1, Aesthetics, includes a full discussion of light and glare (refer to Impact 4.1.1 and associated discussion on pages 4.1-38 thru 4.1-39). As noted:

"The amount of light reflected upwards would not be expected to potentially affect the Naval Air Facility at El Centro's training flights or other air traffic in the area, including crop dusters. Only 2 to 10 percent of ambient light is reflected by PV and CPV solar panels since generally the index of

refraction for the glass is approximately the same as the windshield of a car (EGI 2012). Therefore, the intensity of the reflected light would be low. Also, light intensity decreases with distance from the source (according to the inverse square law of light intensity where intensity is equal to the inverse square of the distance or $I = 1/d^2$). For example, each time distance is doubled from the source, the light intensity is decreased to one-quarter of its original value ($1/2^2$). Therefore, the intensity of light reflected from the PV or CPV solar panels at locations any distance from the source would be a small fraction of the original intensity at the point of reflection (EGI 2012). Thus, any reflected light from the PV or CPV panels would be very low. Any viewers who could see the low intensity reflected light would also be exposed to significantly brighter ambient light."

See also Response to Comment 8-30.

Response to Comment 8-13: The comment again restates prior assertions regarding conflicts with, and elimination of, agricultural land as a result of the proposed Project. The comment also reasserts that existing A-2, A-2-R and A-3 zoning on the solar field site parcels is inconsistent with the General Plan's "Agriculture" designation. These issues have been previously discussed. Refer to Response to Comment 8-5 and 8-8, above, as well Response to Comment 7-7, 7-8 and 7-9.

Response to Comment 8-14: This comment is an introductory statement to Comment 8-15. Refer to Response to Comment 8-15, below.

Response to Comment 8-15: The commenter states the Draft EIR's Project Description is inadequate because the Project's twenty objectives "preclude nearly all other alternatives by artificially narrowing the Project's description." More specifically, the comment asserts that "limiting objectives to only allow a 250 MW project on land owned by the applicant precludes informed decision making and gives the project's purpose an artificially narrow definition." However, the project's objectives are not "artificially narrow" such that they preclude informed decision making or consideration of a reasonable range of project alternatives as required by CEQA. (CEQA Guidelines, Section 15126.6(a).) To the contrary and consistent with the requirements of CEQA, detailed project objectives describe the underlying purpose of the project and aid the lead agency in developing a reasonable range of alternatives to evaluate in the EIR. (CEQA Guidelines, Section 15124(b); *Habitat & Watershed Caretakers v City of Santa Cruz* (2013) 213 Cal.App. 4th 1277, 1300 [project objectives must "illuminate" the underlying purpose of a project rather than just describe the nature of a project.]; see also *In re Bay-Delta et al.* (2008) 43 Cal. 4th 1143, 1166 ["Although a lead agency may not give a project's purpose an artificially narrow definition, a lead agency may structure its EIR alternative analysis around a reasonable definition of underlying purpose and need not study alternatives that cannot achieve that basic goal."])

Refer to Response to Comment 7-4 regarding discussion of alternative sites. As discussed, CEQA does not *require* consideration of alternative locations that the applicant does not own or control. CEQA only requires consideration of alternatives to the project or its location that can substantially lessen or avoid significant impacts. (14 Cal Code Regs Section 15126.6(b).) Consideration of alternative locations is not warranted for the Project because the applicant cannot reasonably acquire, control or otherwise gain access to an alternate site. (CEQA Guidelines, Section 15126(f)(1) [Among the factors that may be taken into account when addressing the feasibility of alternatives are . . . whether the proponent can reasonably acquire, control or otherwise have access to the alternative site."]) The existing project site is owned by 12-different landowners, meaning the applicant was required to engage in successful negotiations with 12-different parties to attain control of the Project site. (Draft EIR, Chapter 2.0, Project Description, sub-section 2.1.3 Ownership, page 2.0-2.) The commenter did not identify any alternative sites that could be made available to the Applicant to host the Project.

Alternative site analysis is not necessary when the proposed use is permitted by the zoning for the proposed site. (See *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 C3d 553, 572-573 [once the policy decision has been made on the appropriate uses for a site, and that policy is incorporated in all applicable land use plans, a specific development proposal should not trigger ad hoc reconsideration of plan policies]; *Mira Mar Mobile Community*, 119 Cal.App. 4th 477 [finding that an EIR for a residential development consistent with the existing plans, policies, and zoning did not need to examine alternative sites for the project].) Here, per Title 9, Division 5, Section s 90508.02 and 90509.02 of the Land Use Ordinance, solar energy electrical generators, electrical power generating plants, substations, and facilities for the transmission of electrical energy are allowed as conditional uses in Agricultural zones.

Finally, it should be noted that an EIR is required to consider Project alternatives that would "feasibly attain most of the basic objectives of the project," not each and every objective of the project. (CEQA Guidelines, Section 15126.6(a).) As such, the objectives do not preclude consideration of larger or smaller solar generating facilities or consideration of an alternative project location, if the County determines that such consideration is otherwise warranted. For the reasons noted above, consideration of an alternate location is not warranted for the Project.

Response to Comment 8-16: The comment asserts that the Draft EIR fails to analyze a reasonable range of alternatives. CEQA vests the lead agency with significant discretion when it comes to identifying a reasonable range of alternatives to study in an EIR, and permits the lead agency to reject proposed alternatives from more detailed analysis provided the process used to select the alternatives is briefly discussed in the EIR and the decision is supported by evidence in the record. (Pub. Res. Code, § 15126.6(c).) An alternative may be rejected from detailed analysis in an EIR if it fails to reduce or avoid the project's significant environmental effects, does not implement the basic project objectives, is not potentially feasible, or is facially unreasonable. (Pub. Res. Code, §15126.6(c); *Tracy First v. City of Tracy*, 177 Cal.App. 4th 912; see also *Mann v. Community Redevelopment Agency* (1991) 233 Cal.App.3d 1143; *Del Mar Terrace Conservancy, Inc. v. City Council* (1991) 10 Cal.App. 4th 712.) These criteria are not exhaustive, however, and other appropriate factors may be considered as well. (*Residents Ad Hoc Stadium Committee v. Board of Trustees* (1979) 89 Cal.App.3d 274.). See also Response to Comment 8-17.

Response to Comment 8-17: The Draft EIR provides information regarding the value and feasibility of Distributed Generation in general. The information provided is not about Imperial County or this project. However, the issue is the analysis of Distributed Generation instead of the proposed Project. Draft EIR, Chapter 6.0 Alternatives, sub-section 6.2.3 (pages 6.2-3 and 6.2-4) considered a distributed generation system as suggested by the comment, and determined not to carry it forward as part of the reasonable range alternatives to the proposed Project because it did not achieve the Project's goals. Distributed generation involves the development of a large number of geographically distributed small solar PV systems within existing developed areas, typically on the rooftops of residential and other facilities. Distributed generation is generally available for use on-site and does not deliver electricity to the grid as a utility-scale solar facility does or contain an energy storage component. (See Draft EIR pages 6.2-3 and 6.2-4).

An alternative may be rejected from detailed analysis in an EIR if it fails to reduce or avoid the project's significant environmental effects, does not implement the basic project objectives, is not potentially feasible, or is facially unreasonable. (Pub. Res. Code, Section 15126.6(c)

The Draft EIR does not conclude that a distributed generation alternative is technically and economically infeasible overall; instead, this alternative is not practicable or feasible here and does not satisfy most of the Project objectives.

The distributed generation alternative was rejected from further consideration for several reasons. As explained in the Draft EIR, even assuming there are enough additional sites (approximately 25,000 sites based on the assumption that each site would generate 10,000 MW) within the County for installation of distributed PV to accomplish the Project's objective of generating utility-scale energy, this alternative cannot feasibly accomplish most of the Project's objectives. Distributed generation systems typically do not have an energy storage component and therefore would not meet the Project objective of contributing to the state's target of procuring 1.3 GW of energy storage by the end of 2020 (Draft EIR pages 6.0-3 and 6.0-4)

Second, the County has no authority over the installation of distributed PV generation systems outside of its jurisdiction and therefore there is no guarantee that action by the County to approve a distributed generation alternative support the objective of assisting the State of California meet to its RPS goals. Third, for the same reason, there is no guarantee that a distributed generation alternative would support the goal to create additional employment and Project-related expenditures in Imperial County local businesses[1] because of the individual and dispersed nature of Distributed Generation (Draft EIR, sub-Section 6.2.3, page 6.0-3).

Furthermore, rooftop systems typically consist of less efficient fixed-tilt systems that may not be oriented optimally towards the sun, meaning that developers would need to attain more surface area for the project if constructed on a rooftop instead of on the ground. The transaction costs of convincing 25,000 building owners to grant the Applicant site control over 25,000 rooftops, the complexity of mobilizing construction crews across multiple projects including the transporting and deployment of construction materials in a less efficient manner make this type of alternative infeasible to implement within a reasonable period of time.

As the Draft EIR identifies, the ability to acquire access and permission to use a large number of individual properties presents difficulties with respect to the build-out of the system within a timeframe that would be similar to that of the proposed Project. It is unrealistic to assume that the proposed Project could acquire access rights to numerous individual properties, and timely permit and construct sufficient small-to-medium scale solar facilities capable of generating utility-scale energy, within a reasonable timeframe. (*Al Larson Boat Shop, Inc. v. Board of Harbor Commissioners* (1993) 18 Cal. App. 4th 729 [alternative may be rejected from detailed consideration if as a practical matter such alternative is unlikely to be carried out within the reasonable future]).

Although the distributed generation alternative would result in increased generation of renewable energy sources, at present, most rooftop solar is ineligible to contribute toward RPS. Additionally, current trading mechanisms by which distributed generation facilities could contribute to the RPS target are either impractical for small-scale systems or ineligible for utility

1 In response to Objective 1.8, the 2011 Staff Memorandum, and Resolution 2012-005, the County hired Development Management Group (DMG) to prepare the *Wistaria Ranch Solar Economic Impact Analysis (EIA), Employment (Jobs) Impact Analysis (JIA), Fiscal Impact Analysis (FIA)*. DMG's Analysis addresses the clear and immediate need for the Project as well as the various types of benefits resulting from the Project. These include: based on the following: (1) A net increase of 17 jobs compared to the jobs for the existing agricultural use; (2) A net increase of $243 million in new wages compared to the wages for the existing agricultural use; solar job wages are estimated to be $293 million compared to estimated $50 million from continuing existing agricultural jobs (Exhibit A; DMG 2014); (3) Approximately 573 construction jobs (DMG 2014, p. 24); (4) Approximately $451.41 million in overall economic impact to the Imperial Valley Region over the possible 30+ year term from the construction and operation of the Project(Exhibit A; DMG 2014); and (5) Approximately $24.28 million in gross revenues (sales and property taxes) during the same period (DMG 2014, p. 19). (Section 4.9, Agricultural Resources of the Draft EIR, page 4.9-5.)

participation. While a CPUC decision was issued authorizing the use of tradable renewable energy credits (CPUC Decision 10-03-021), the market is in its infancy, with limited activity. As a consequence, the lack of a market for tradable renewable energy credits means that no agreed mechanism currently exists to allow developers to purchase or trade small-scale distributed generation that could displace the development of utility-scale solar facilities which contribute to the RPS goals. Therefore, any market and consequently any distributed generation solution as an alternative to the Project would be speculative.

Response to Comment 8-18: The comment asserts that a distributed generation alternative is also politically feasible and suggests that the County could adopt a local loan program to incentivize property owners to install rooftop solar facilities. Again, the Draft EIR does not conclude that a distributed generation alternative is politically infeasible nor is such a conclusion necessary under CEQA, but a policy argument. See Response to Comment 8-17.

Response to Comment 8-19: The comment suggests that a distributed generation alternative would actually be superior to the proposed Project in terms of environmental and economic impacts. See Response to Comment 8-17.

Response to Comment 8-20: The commenter states that the Draft EIR fails to substantiate its assertion that a distributed generation alternative cannot feasibly accomplish Project objectives. See Response to Comment 8-17.

Response to Comment 8-21: The commenter reiterates that the Project objectives are impermissibly narrow. See Response to Comment 8-15.

Response to Comment 8-22: The comment states that the Draft EIR failed to satisfy CEQA's substantial evidence requirement when it did not provide an explanation as to why the County could not develop or incentivize development of distributed generation systems that have any energy storage component. See also Response to Comment 8-15. It should also be noted that he commenter actually raises a policy and not a CEQA issue.

Response to Comment 8-23: The comment asserts that contrary to the Draft EIR's statement that distributed generation does not contribute significantly to a utility company meeting the high current and future RPS (Draft EIR page 6.0-4), distributed PV sources are qualifying as RPS eligible and therefore are able to directly contribute to the RPS target. The comment also states that even distributed PV sources that are not RPS eligible still indirectly assist utilities in achieving the RPS target by reducing the amount of electricity that they would otherwise have to purchase to achieve the 33 percent renewables goal. See Response to Comment 8-16.

Response to Comment 8-24: This comment repeats the earlier comment 8-15 regarding alleged "artificially narrow" project objectives. See Response to Comment 8-15.

Response to Comment 8-25: The comment states that the Project would have a significant impact on agricultural production by terminating and preventing all agricultural use on the subject lands up to 30 years. The comment also asserts that agricultural use could be terminated "potentially indefinitely." Nowhere does the Draft EIR indicate that the land affected by the Project would be terminated indefinitely; the contrary is true. Sub-Section 2.1.6, Decommissioning and Reclamation Plan, of Chapter 2.0, Project Description of the Draft EIR states "Development of a solar facility would preclude agricultural crop production only in the affected CUP areas for up to the 30 year maximum life of the CUP. Due to the Development Agreement's ability to phase in implementation of an individual CUP or groups thereof, CUPs may be decommissioned independently of one another. Decommissioning activities would begin the sooner of: 1) when the solar facilities covered by a specific CUP no longer generate electricity; or 2) the 30 year CUP

term expires. The decommissioning activities are contained in the Reclamation Plan. The requirements for decommissioning, reclamation and restoration collectively are referred to as the 'Reclamation Plan.'" (Draft EIR page 2.0-67).

In addition to limiting the term for which the land would be converted, mitigation measure MM 4.9.1b on page 4.9-51 of the Draft EIR requires the Applicant to prepare and submit a Reclamation Plan to the County prior to issuance of a grading permit. Mitigation measure MM 4.9.1b also requires that the Reclamation Plan document procedures by which each CUP will be returned to its current agricultural conditions/LESA score and provide financial assurance/bonding to implement the Reclamation Plan. As stated on page 4.9-51 of the Draft EIR, "The assurance that the impact will be temporary is accomplished through the Applicant's commitment to a reclamation plan and mitigation measure MM 4.9.1b that requires the Applicant restore the site to agricultural use with a soil value equal to the pre-Project condition and back that commitment with financial security." Thus, mechanism are in place to ensure that the parcels affected by the Project will be returned to pre-Project soil condition at the end of 30-year maximum life of each CUP. See also Response to Comment 8-10 regarding the DOC requirements for reclamation plans.

The comment goes on to state that the Draft EIR ignores or dismisses the Project's significant negative impacts on Imperial Valley agriculture. These five areas are identified and addressed in Response to Comments 8-26 thru 8-30.

Response to Comment 8-26: The comment states that the Draft EIR ignores the Land Use Element's use standards on lands designated as "Agriculture". The comment reasserts that utility-scale electrical generation and transmission uses are prohibited. This comment reiterates an issue that has been previously responded to at length. Refer to Response to Comment 8-5 and 8-9, above.

Response to Comment 8-27: The comment states that the Draft EIR fails to analyze the ways the Project would impede agricultural operations on farmlands surrounding the Project sites. The comment also states that the Draft EIRs conclusion, that no conflict with surrounding lands in Agricultural production would occur because the proposed Project is subject to the County's Right to Farm Ordinance and is a solar in-fill project, is erroneous. This comment has been previously addressed. Refer to Response to Comments 7-17 and 8-11, above.

Response to Comment 8-28: The comment references a local farmer's assertions that solar projects create heat dams resulting in the increasing agricultural conversion, difficulty in aerial and ground applications, damage to commodities and creation of more dust as farmland is lost. The comment asserts that the Draft EIR ignores these claims. The issues raised in this comment are addressed in other responses. Refer to Response to Comment 7-19 regarding heat dams. Damage to commodities through creation of dust was addressed as part of Response to Comment 8-11. The issue of impacts to aerial applications is addressed in Response to Comment 8-30.

Response to Comment 8-29: This comment states that the EIR fails to analyze how the Project would affect agriculture *countywide* due to the alleged cumulatively significant conversion of fertile farmland to non-agricultural uses as additional agricultural lands are converted into utility-scale energy projects in the future. The comment states that such conversion will have a "spiral of death" effect, leading to the decline of agriculture-serving businesses, resulting in logistical problems and cessation of other farming operations.

The comment's claim that there will be a "spiral of death" is not supported with any data that agriculture-serving businesses have closed specifically due to the development of solar projects, rather than other market forces.

Nevertheless, the County has recognized that this perception of a socio-economic impact on the agricultural industry exists and, therefore specifically analyzed it in the Draft EIR. Chapter 7.0, Other CEQA Considerations, sub-section 7.2 Socioeconomic Impacts explains that the socioeconomic impacts that flow from a "temporary conversion" of agricultural land for a compatible, non-agricultural use (Draft EIR pages 7.0-15 thru 7.0-18)

The County also has addressed the possible or perceived impacts of farmland conversion including loss of agricultural jobs through mitigation measure MM 4.9.1a in Section 4.9 Agricultural Resources of the Draft. Page 4.9-61 of the Draft EIR indicates that only 4.5 percent of the farmland in Imperial County percent (24,244 acres ÷ 539,273 acres x 100) would be converted assuming all the projects on the cumulative impact list are actually developed [Note: no change in the percentage of land would occur in association with development of the Preferred Project (24,112 acres ÷ 539,273 acres x 100 = 4.5 percent) as compared to the Original Project. Refer to Table 4.9-25 in Chapter 4.0, Errata of this Final EIR]. There is no evidence that this small percentage of land has a significant impact on the loss of countywide agricultural production

Response to Comment 8-30: The comment states that the EIR is inadequate because it fails to analyze whether the Project could disrupt the local airport servicing crop dusters and risk local pilot safety due to the glint and glare from the Project. The comment also states that the EIR is inadequate because it does not offer substantial evidence to support its conclusion that the glare impacts are less than significant. Lastly, the comment cites to a blog entry dated June 9, 2014 speculating that glare from utility scale solar panels contributed to the June 4, 2014 military Harrier A-8B crash in the City of Imperial.

Section 4.1, Aesthetics of the Draft EIR analyzed potential impacts on the local crop duster operations and pilots in the area. Page 4.1-38 of the Aesthetics Section specifically states that the amount of light reflected upwards would not affect the Naval Air Facility at El Centro's (NAFEC) training flights or other air traffic in the area, including crop dusters. The Draft EIR also states that only 2 to 10 percent of ambient light is reflected by PV and CPV panels since generally the index of refraction for the glass is approximately the same as the windshield of a car. (*Id.*) Therefore, the commenter's assertion that the EIR did not analyze aviation hazards from glare is inaccurate.

The Draft EIR also noted that the Project was reviewed by the Airport Land Use Commission (ALUC). Page 4.2-24 of the Land Use Section states: "The proposed Project was presented and discussed at the County's ALUC Meeting held on March 19, 2014. In accordance with applicable rules and regulations, the ALUC reviewed the proposed application, including the variance requests for transmission structure height. The ALUC found the proposed Project consistent with the 1996 ALUCP with no conditions. Further, no mention or concerns were raised nor did the ALUC find there to be any significant impacts or hazards to continued crop dusting from glare or transmission line locations.

The Notice of Preparation for the Project (issued on September 26, 2013) and two copies of the Draft EIR (issued on August 22, 2013) were sent to the NAFEC. No comments or concerns were offered from the NAFEC in response to either solicitation.

With regard to the comment's second assertion that the EIR's conclusion is not supported by substantial evidence, the Aesthetics analysis indicates that the reflected light from the PV or CPV panels would be very low. In fact, the ambient light would be significantly brighter than the low-intensity reflected light from the Project (Draft EIR, page 4.1-38). In addition, the PV or CPV panels are designed to absorb as much light as possible to maximize efficiency. (Id.) Moreover, for this project, an anti-reflective coating will be used to decrease reflection and increase conversion efficiency (Id.) The fact that the specific make and model of panel has not been selected yet, does

not contradict this claim because the expert explaining how anti-reflective coatings perform. As previously noted, only 2 to 10 percent of ambient light is reflected by PV and CPV panels since generally the index of refraction for the glass is approximately the same as the windshield of a car. (Id.) Light intensity also decreases with distance from the source, therefore, the intensity of light reflected from the PV or CPV solar panels at locations any distance from the source would be a small fraction of the original intensity at the point of reflection. (Id.) In addition to the low reflectivity of the PV or CPV panels, the Project will not include other reflective materials such as fiberglass, vinyl/plastic siding, brightly painted steel roofs, or reflective forms of aluminum and galvanized products that have the potential to create on- and off-site glare (Draft EIR, page 4.1-39).

This conclusion is supported by the low reflectivity of PV or CPV panels, the interim guidelines published by the Federal Aviation Administration ("FAA") as of October 23, 2013, provide regulatory and safety requirements for solar projects, including guidance on reflectivity issues. Section 3.1.2 confirms that solar PV panels are constructed of dark, light-absorbing materials and covered with anti-reflective coating. (Id.) Panels reflect as little as 2 percent of the incoming sunlight depending on the angle of the sun and assuming use of anti-reflective coatings. (Id.)

The Federal Aviation Administration Technical Guidance for Evaluating Selected Solar Technologies on Airports (November 2010) states that:

> *Solar installations are presently operating at a number of airports including megawatt-sized solar facilities covering multiple acres. Project managers from six airports where solar has been operational for one to three years were asked about glare complaints. Air traffic controllers were contacted from three of those airports and asked to comment on the effect of glare on their daily operations. To date, there have been no serious complaints from pilots or air traffic control due to glare impacts from existing airport solar PV installations……The anecdotal evidence suggests that either significant glare is not occurring during times of operation or if glare is occurring, it is not a negative effect and a minor part of the landscape to which pilots and tower personnel are exposed*." (page 41).

The blog article cited by the commenter is speculative at best. CEQA provides that substantial evidence includes facts, reasonable assumptions based on facts, and expert opinion supported by facts. (Pub. Res. Code Section 21080(e).) Substantial evidence does not include argument, speculation, unsubstantiated opinion or narrative, evidence that is clearly inaccurate or erroneous, evidence that is not credible, or evidence of economic or social impacts that do not contribute to or are not caused by physical environmental impacts. (Pub. Res. Code Section 21082.2(c).) Testimony and/or reports by experts supporting a finding that a project's impacts will be insignificant constitute substantial evidence supporting the agency's conclusions. The blog article cited by the commenter is speculative and does not constitute evidence.

Response to Comment 8-31: The comment states that the Draft EIR wrongly concludes that "conversion of land under Williamson Act contract is not an issue" and presents no significant impact." The Draft EIR contains analysis of potential Williamson Act contract impacts on pages 4.9-52 thru 4.9-56 of the Draft EIR. The Draft EIR also contains a detailed discussion of Williamson Act contract issues in Section 4.9.1, Regulatory Framework and Section 4.9.2, Environmental Setting.

The Department of Conservation (the "DOC") confirmed, in its December 11, 2013 letter to the County, that there was substantial evidence to support the required findings for termination of

the Williamson Act contracts on the project site. The active Williams Act contracts on the project site are already set to expire. The Draft EIR states that "[f]our-hundred and thirty-six acres proposed for development as CUP 13-0051 and 13-0052 of the proposed Project are currently under Williamson Act contract in nonrenewal. As noted on page 4.9-40 of the Draft EIR, the notice of nonrenewal was submitted on November 17, 2006, recorded on December 4, 2006 and the contract is expected to expire in December 2016 (Penberth 2013)." The County is terminating all Williamson Act contracts countywide, regardless of the Project. The Draft EIR states that "[o]n February 23, 2010, the Imperial County Board of Supervisors voted to not accept any new.

Williamson Act contracts and not to renew existing contracts, due to the elimination of the subvention funding from the state budget. The County reaffirmed this decision in a vote on October 12, 2010, and notices of nonrenewal were sent to landowners with Williamson Act contracts following that vote. As stated on page 4.9-20 of the Draft EIR, the applicable deadlines for challenging the County's actions have expired, and therefore all Williamson Act contracts in Imperial County will terminate on or before December 31, 2018."

Section 4.9 Agricultural Resources of the Draft EIR includes considerable discussion (Draft EIR page 4.9-40) and analysis (pages 4.9-52 thru 4.9-56) of potential Williamson Act contract impacts. In addition, the Draft EIR includes a discussion of Socioeconomic Impacts (Draft EIR pages 7.0-15 thru 7.0-18) based on the Fiscal Impact Analysis ("FIA") prepared for the Project.

Response to Comment 8-32: The comment provides introductory remarks regarding the Draft EIR's analysis of impacts on Biological Resources. The comment cites various Sections of the Public Resources Code, CEQA Guidelines and Migratory Bird Treaty Act. The comment states that the Drat EIR's Biological resources analysis must be revised, but no specific example is provided. Comment noted. Responses to specific issues are provided in Responses to Comments 8-33 thru 8-45.

Response to Comment 8-33: The comment states that surveys completed for the Project were inadequate based on the limited number of days spent surveying as well as the time period that has elapsed since the surveys were taken. Given that approximately 94% of the Biological Study Area (BSA) was either agriculture or developed, this survey time is reasonable. Furthermore, as noted in Section 4.2 Land Use and Section 4.9 Agricultural Resources of the Draft EIR, land use within the BSA has historically been agriculture and is planned as agriculture. Conditions are unlikely to have changed significantly over the past 18 months. The survey time was also adequate to determine potential rare plant species that would occur in the Biological Study Area (which exclude CUP area 13-0047. As noted on page 4.12-31 of the Draft EIR, there was moderate potential for one special-status plant species, California satintail (*Imperata brevifolia*) to occur along the drains and canals within the BSA. If present, this conspicuous perennial, rhizomatous grass species would have been observed during the rare plant habitat assessment and/or vegetation mapping, but it was not detected. Impact 4.12.3 and mitigation measure MM 4.12.3 have been revised to reflect elimination of CUP 13-0047 in Chapter 4.0, Errata of this Final EIR.

Response to Comment 8-34: The comment reiterates Comment 8-33. Refer to Response to Comment 8-33. The comment also notes burrowing owl surveys were not completed "between February 15 and April 15." Response to comment 8-35 addresses this comment the timing and duration of burrowing owl surveys.

Response to Comment 8-35: The comment notes that a one-day wildlife habitat assessment is inadequate and that the burrowing owl survey failed to follow the CDFW protocol. As explained in Section 4.12 Biological Resources of the Draft EIR (page 4.12-66), the first survey began on April

10, 2012 and extended three days beyond the April 15 survey window and ended on April 18, due to delays caused by high wind conditions.

Given that approximately 94% of the Biological Study Area was either agriculture or developed, one day is a reasonable amount of time to determine whether suitable habitat may exist on site for special status wildlife species. However, as noted on Draft EIR page 4.12-62 and Appendix J, AECOM biologists recorded wildlife sign, track, and direct observations that were incidentally detected during the burrowing owl protocol surveys that were conducted during April, May, and June 2012. Additionally, habitat connectivity and potential wildlife movement corridors within the Biological Study Area were evaluated during the burrowing owl surveys.

The burrowing owl surveys followed the CDFW protocol with three minor exceptions as noted on Draft EIR pages 4.12-66 thru 4.12-68; however, all three deviations were approved by the CDFW. The first survey began on April 10, 2012 and extended three days beyond the April 15 survey window and ended on April 18, due to delays caused by high wind conditions. This deviation was approved by the CDFW (see Response to Comment 8-33), as it would not be advisable to survey for the species during adverse weather conditions. . The other two deviations were also approved by the CDFW (see Appendix C in the Biological Technical Report [Appendix J of the Draft EIR]).

Response to Comment 8-36: The comment states that no vegetation mapping, rare plant assessments, and burrowing owl surveys were completed in CUP 13-0047. The comment also notes that no burrowing owl surveys were completed in the Mount Signal Solar Farm Project's Gen-Tie corridor.

Following the close of the public review period for the Draft EIR, the Applicant submitted a letter dated October 30, 2014 to the County of Imperial Planning and Development Services Department Director, Mr. Jim Minnick and the Project Planner, Mr. David Black withdrawing CUP 13-0047 and Variance 13-0012. As such, CUP 13-0047 is no longer part of the Project.

As discussed on page 4.12-47 of the Draft EIR, surveys were not conducted within portions of the Project's gen-tie facilities that would be shared with the Mount Signal Solar Project's existing structures. It is reasonable to rely on the information collected in surveys conducted by RECON and Barrett Biological conducted in 2010 and 2011 (RECON 2011) that detected approximately 16 occupied burrows. The areas surveyed in RECOM 2011 are now developed; however occupied burrows may be present along disturbed habitat or IID canals and/or drains that remain in these areas.

Response to Comment 8-37: The comment notes that burrowing owl surveys were inadequate and asserts that the EIR's conclusions about burrowing owl impacts are not supported by the facts. Multiple impacts on the burrowing owl have been identified and mitigation for those impacts has been provided to decrease impacts to "less-than-significant" levels. See Responses to Comments 8-35 thru 8-44.

Response to Comment 8-38: The comment provides introductory language stating that burrowing owl impacts are not mitigated to less than significant. Responses to Comment 8-39, 8-40 and 8-41 (below), as well as Response to Comment 2-7, 2-9, 2-10 (above).

Response to Comment 8-39: The comment notes that impacts of noise or night lighting are not mitigated for burrowing owls.

Table 2.0-9 in Chapter 2.0 of the Draft EIR describes Project Applicant proposed Project design features included as part of the Project. These features help to avoid and minimize impacts of noise and lighting on burrowing owls. Mitigation measure MM 4.12.7 requires construction

buffers and "shelter in place" techniques to create a visual and auditory barrier for burrowing owls at occupied burrows.

Response to Comment 40: The comment notes that the construction buffers in mitigation measure MM 4.12.7 would not be sufficient to protect burrowing owls from construction noise and lighting impacts because owls regularly use areas beyond those buffer distances.

This comment confuses the use of foraging habitat by burrowing owl with noise and light sensitivity of burrowing owls at occupied burrows. Construction buffers and "shelter in place" techniques described in mitigation measure MM 4.12.7 (Draft EIR pages 4.12-121 thru 4.12-125) are implemented to prevent burrowing owls from abandoning occupied burrows that will be avoided (i.e., not permanently impacted by Project construction). Occupied burrowing owl burrows in the Imperial Valley are within and along water conveyance structures and private farmer field ditches. Roads adjacent to these structures are routinely (generally, daily or more often) driven on by Imperial Irrigation District employees and/or driven/walked by farmer employees. Additionally, adjacent habitat is comprised of active agricultural fields with farming activities routinely occurring within 50 feet or closer of occupied burrows. As such, the buffers of 164 feet during the non-breeding season and 246 feet during the breeding season described in mitigation measure MM 4.12.7 are sufficient to avoid and minimize impacts to occupied burrows. Impacts to foraging habitat are quantified in Table 4.12-16, Anticipated Permanent Direct Impacts to Core Burrowing Owl (foraging) Habitat (Draft EIR page 4.12-117) and mitigation for these impacts is discussed in the Burrowing Owl Habitat Mitigation strategy portion of mitigation measure MM 4.12.7.

Response to Comment 8-41: The comment notes there is minimal discussion of glare, or pseudo lake effect, on owls. It also notes that there is no discussion of the PV panels hindering the burrowing owls' ability to forage.

The pseudo lake (or glare) effect is of less relevance to burrowing owls than to migratory water fowl, as this species is not a water bird and is not attracted to lakes. Burrowing owl habitat generally includes short or sparse vegetation (e.g., annual and perennial grasslands, deserts, scrublands, and agriculture) presence of burrows, burrow surrogates or presence of fossorial mammal dens, well-drained soils, and abundant and available prey (CDFW 2012).Page 4.12-116 of the Draft EIR discusses the potential pseudo lake (or glare) effect that polarized light pollution may have on burrowing owl. A discussion on the PV panels hindering the owl's ability to forage is not needed because foraging habitat under the PV panels is permanently removed as a result of the Project, and burrowing owls cannot forage within the solar fields. Burrowing owl will still be able to forage within the IID drains and canals that are not directly impacted as a result of the Project. Pages 4.12-116 and 4.12-117 of the Draft EIR note that foraging habitat will be permanently removed as a result of grading, construction, and placement of solar facilities. Table 4.12-16 also quantifies the permanent direct impacts to core burrowing owl foraging habitat. Mitigation measure MM 4.12.7 provides measures to reduce impacts to burrowing owl to less than significant.

Response to Comment 8-42: The comment states that burrowing owl surveys are inadequate and therefore impacts are not adequately analyzed and appropriate mitigation measures cannot be presented. This issue has been previously addressed. Refer to Responses to Comments 8-33 thru 8-41.

Response to Comment 8-43: The commenter states that no new surveys for loggerhead shrike have been completed in the Mount Signal Solar Farm Project Gen-Tie corridor and that decision-makers must speculate about impacts.

The commenter has provided no evidence as to why these impacts are speculative without surveys. As noted in Section 4.12, Biological Resources (page 4.12-126 of the Draft EIR), the Mount Signal Solar gen-tie line pole structures that would be upgraded or installed are not located within suitable loggerhead shrike habitat; therefore, no direct impacts to loggerhead shrike would result from construction work within the Mount Signal Solar Gen-Tie Corridor. Suitable foraging habitat exists in an agriculture habitat adjacent to this corridor, and indirect impacts are discussed on page 4.12-127 of the Draft EIR. Page 4.12-56 of the Draft EIR describes loggerhead shrike habitat and occurrence based on survey data and known data for the Mount Signal and Calexico Solar farm Projects (RECON 2011). Impacts to the loggerhead shrike were fully disclosed in the Draft EIR.

Response to Comment 8-44: The comment states that impacts to migratory birds and avian species that winter in Imperial Valley cannot be fully understood, because "wintering avian surveys were not conducted for the Project." Sub-section 4.12.2 (Environmental Setting) of Section 4.12 Biological Resources of the Draft EIR provides a discussion of habitat and occurrence for avian species that winter in the Imperial Valley. This discussion was based on the habitat assessment, survey data, and a background literature search on known avian data for the region. The commenter cites text from these Sections and is in agreement with the statements made for wintering species in the Draft EIR. Information and data collected from other sources and used in the analysis in the Biological Technical Report (Appendix J) provides sufficient information to assess the Project's potential direct, indirect, and cumulative impacts upon wintering avian species, and to formulate mitigation measures designed to reduce potentially significant impacts to a less-than-significant level as described in the Draft EIR.

Response to Comment 8-45: The commenter states the Draft EIR downplays the impact of avian collisions with solar panels by noting that the panels will only be as reflective as asphalt, not water. The comment also notes that the Draft EIR concludes that impacts will be less than significant with mitigation due to this statement.

The commenter takes this statement out of context. In fact, on pages 4.12-111, 4.12-114, 4.12-127, 4.12-131, 4.12-135, 4.12-140, 4.12-151, 4.12-152, and 4.12-158 of the Draft EIR, the impact discussion states, "Although studies have shown that glare intensity and/or reflectivity of CPV modules are lower than that of water and similar to asphalt, avian species may collide with PV panels and/or become stranded in solar fields resulting in fatalities." The Draft EIR notes that impacts will be less than significant due to implementation of mitigation measures MM 4.12.1a, MM 4.12.1b, MM 4.12.1c, MM 4.12.1d, MM 4.12.1e, MM 4.12.1f, MM 4.12.14a, 4.12.14b and MM 4.12.14.

Response to Comment 8-46: The comment states that the Draft EIR does not provide adequate studies and that, as a result, the Draft EIR does not serve its function as an informational document on which the public and decision-makers can rely to understand the Project's impacts.

This is a general comment. CEQA Guidelines Section 15204(a) provides that, "the adequacy of an EIR is determined in terms of what is reasonably feasible . . . CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters."

Response to Comment 8-47: This comment states the Project's water supply is uncertain due to the existing drought and that the EIR is therefore required to discuss the availability of alternative water sources. As discussed in the Draft EIR, the Project will obtain water from the Colorado River through the IID canal system for both construction and operational activities. During construction, the Project anticipates using a total of 1,200 acre-feet of water. During the operational phase,

the Project anticipates a requirement of approximately 60 acre feet per year ("AFY"), with each CUP utilizing approximately 3.5 AFY. Page 4.13-21 of the Draft EIR indicates that the Project's water use will be substantially below the existing and historical agricultural uses averaging approximately 14,110 AFY.

Water Code Section 10912 provides that proposed photovoltaic or wind energy generation facility approved on or after the effective date of the amendments made to this section at the 2011-12 Regular Session is not a project requiring a water supply assessment if the facility would demand no more than 75 acre-feet of water annually.

Notwithstanding, local government agencies have approved the Imperial Integrated Regional Water Management Plan, which is a comprehensive planning document prepared on a region-wide scale that plans for and enables implementation of stakeholders' priority water resources projects and programs. The Imperial Integrated Regional Water Management Plan ("IRWMP") is available at http://imperialirwmp.org/2013%20Updates/finalirwmp.html. That IRWMP provides a portfolio of cost-effective water supply management strategies that support economic development and provide a reliable water supply for new municipal, commercial, and industrial (MCI) demands without negatively impacting existing MCI and agricultural water users, or existing agreements and contracts. Chapter 5 of the IRWMP explains that IID obtains its water supply from the Colorado River. Such water supply will be used for this Project. As required by state regulations, the IRWMP analysis includes a projection of dry year water supplies (IRWMP, at p. 5-25.) (See, IIRWMP, at p. 5-33 ["average annual runoff (flow) of the Colorado River could decrease by 1 million acre-feet [MAF] to 3 MAF (6 percent to 20 percent) in the next few decades as a result of changes in regional temperature and precipitation.

The Project will be supplied raw Colorado River water pursuant to IID's Interim Water Supply Water Policy for Non-Agricultural Projects ("IWSP"), which was adopted in September 2009 (Draft EIR, pages 4.13-21 and 4.13-22). Water for the project can be delivered from specific canals to an onsite raw water pond that must provide a minimum water supply storage capacity of six days. The Project's requested use of 60 acre-feet of annual operational water is well within the remaining balance of 23,800 acre-feet (as of May 2014) of water available for new industrial uses as designated by the IWSP. In order to qualify for water supply under the IWSP, a water supply agreement will be required to ensure the water supply is secured for the Project for the term of the CUPs pursuant to the terms and conditions of that agreement. The Project will also be required to meet standards for water use efficiency and best management practices. The Project is anticipated to use significantly less water than the historical water use of the agricultural uses currently on the Project site and, as a result of any CUPs approved for the Project, IID's Temporary Land Conversion Fallowing Policy ("TLCFP") adopted on May 8, 2012 will apply. The TLCFP is available at http://www.iid.com/index.aspx?page=638.

Additionally, water supply forecasts for the Colorado River system reflect an on-going drought and increasing probabilities of water supply shortages. IID also has a 3.1 MAF annual consumptive use cap for the term of the Quantification Settlement Agreement, as well as being subject to certain federal policies relating to IID's potential inadvertent use exceeding this consumptive use cap. As a result and since 2013, IID has implemented an apportionment of its water supply under the Equitable Distribution Plan that it adopted in 2006 and has amended since its adoption. The Equitable Distribution Plan recognizes the water supply agreements for industrial users and the apportionment for the Project will be in accordance with the Equitable Distribution Plan and the terms and conditions of its water supply agreement.

Drought conditions currently exist throughout California. The recent groundwater allocation legislation is not applicable to the surface water which would serve this Project.

Response to Comment 8-48: The comment states that the Draft EIR erroneously concludes that the Project will have less than cumulatively considerable impacts to water quality, quantity and runoff citing various pages of the Draft EIR. The analysis included in Section 4.11, Hydrology and Water Quality of the Draft EIR addressed impacts of runoff water quality as part of Impact 4.11.1 and identified associated mitigation (MM 4.11.1a, MM 4.11.1b, MM 4.11.1c and MM 4.11.1d) to address stormwater and erosion (refer to Draft EIR pages 4.11-23-4.11-30). Water quantity is addressed in Impact 4.11.2. Because each CUP site would remain largely impervious, groundwater recharge would not be affected. (Draft EIR pages 4.11-31 and 4.11-32) Furthermore, the Project would not use groundwater for construction, operation or decommissioning activities (refer to Draft EIR pages 4.11-31 and 4.11-32). Impact 4.11.3 (Draft EIR page 4.11-35) addressed potential for erosion with mitigation measures MM 4.11.1a, MM 4.11.1b, MM 4.11.1c and MM 4.11.1d. Runoff volume as it relates to potential on- or off-site flooding was addressed in Impact 4.11.4. In each instance, impacts to water quality, quantity and runoff were found to be reduced to less than significant. Mitigation measures MM 4.11.4a (CUP 13-0038), MM 4.11.4b (CUP 13-0039), and MM 4.11.4c (CUP 13-0049) address potential flooding impacts for the CUPs affected. Lastly, Impact 4.11.6 on pages 4.11-48 thru 4.11-51 of the Draft EIR provides a discussion of cumulative water quality, quantity and runoff impacts. Under cumulative conditions, impacts to water quality, quantity and runoff were found to be less than cumulatively considerable based on compliance with the General Construction Permit and implementation of Site Design BMPs, Source Control BMPs and Treatment Control BMPs.

Response to Comment 8-49: The comment reiterates that the Draft EIR understates the Project's impacts to water supply, water quality and drainage patterns. These issues have been addressed. Refer to Response to Comment 8-45 and 8-46, above.

Response to Comment 8-50: The comment states that the Draft EIR's estimate of Project construction greenhouse gas (GHG) emissions "vastly understates the Project's far greater actual emissions because the County failed to include a 'life-cycle' analysis of the CO2 emissions necessary for Project construction . . . ."

"Life-cycle" analysis means analysis of overall impacts of a specific project which are less than even indirect impacts. CEQA does not require this analysis. (*Save the Plastic Bag Coalition v. City of Manhattan Beach* (2011) 52 Cal .4th 155.) CEQA only requires analysis of impacts that are directly or indirectly attributable to the project under consideration. (CEQA Guidelines, Section 15064(d).)

Response to Comment 8-51: The commenter states that the County must also assess the Project's "substantial *embedded* greenhouse gas emissions such as those emissions associated with production of the materials used to construct the Project, like PV panels, frames and support structures…

The comment states that this analysis is required by CEQA based on the speculative claim that the solar panel industry is so small and specialized that construction of the Project would lead to substantial production of panels that would not occur but for the Project. The commenter supplies evidence that contradicts its claim. The comment letter attaches as Exhibit 5 a study entitled "SunShot Vision Study" (SunShot 2012) prepared for the U.S. Department of Energy, which states "PV manufacturing costs have declined during the past several decades due to a combination of technological innovation, improved manufacturing processes, *and growing PV markets*." (SunShot, page 73) The study also states, "[a]s the annual production capacity of

manufacturers grew from hundreds of kilowatts (kW) to hundreds of megawatts (MW), economies of scale were realized." (SunShot, page 74.) Figure 4-3 of the study shows the shipment of PV panels growing from less than one MW in 1976 to almost 100,000 MW in 2010. All this accelerated growth in demand for PV panels through 2010 pre-date the proposed 2014 Wistaria Project, so the evidence shows there is a significant demand for PV panels with or without the Wistaria Project.

Furthermore, contrary to the comment's assertions, CEQA does not require the type of "life-cycle" analysis sought by the comment. See Response to Comment 8-50. Public Resources Code Section 21151 provides that, in preparing an EIR, "any significant effect on the environment shall be limited to substantial, or potentially substantial, adverse *changes in physical condition which exists within the area* as defined by the proposed project…" (Emphasis added). Public Resources Code Section 21060.5 refers to such "area" as "the physical conditions which exist *within the area which will be affected by the proposed project*…" (*Emphasis added*.). The California Supreme Court interpreted these Section as requiring analysis of the local effects of a proposed project, and not requiring a life-cycle analysis of products that are the subject of a proposed project. (*Save the Plastic Bag Coalition v. City of Manhattan Beach* (2011) 52 Cal. 5th 155.) CEQA only requires an analysis of impacts that are directly or indirectly attributable to the project under consideration (CEQA Guidelines, Section 15064(d)).

The comment cites to a study of life-cycle emissions prepared for a solar project in Tucson, Arizona. While the Tucson study considered GHG emissions that may be associated with producing solar panels and frames, the study is not factually equivalent and does not appear to present evidence relevant to this Project.

The methodology for assessing GHG impacts is consistent with CEQA Guidelines Section 15064.4 (Draft EIR page 4.5-5) and the "Final Statement of Reasons for Regulatory Action. Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 97" (California Natural Resources Agency 2009).

Response to Comment 8-52: The comment asserts that the Draft EIR failed to properly analyze the proposed Project's greenhouse gas (GHG) emissions by "artificially dispersing construction-stage emissions over a 30-year period instead of addressing them as they occur."

As described in Section 4.5, Climate Change and Greenhouse Gases, of Draft EIR, the Imperial County Air Pollution Control District (ICAPCD) has not established quantitative significance thresholds to evaluate GHG impacts in a CEQA analysis. Instead, each project is evaluated on a case-by-case basis using the most up-to-date calculation and analysis methods (Draft EIR page 4.5-15.) To establish some context for considering the significance of the Project's construction-related and operational GHG emissions, the Draft EIR considered the significance threshold adopted by the nearby South Coast Air Quality Management District (SCAQMD), which is 10,000 MT CO2e per year. The Draft EIR also acknowledges that many California air districts, including SCAQMD, recommend that construction emissions associated with a project be amortized over the life of the project (typically 30 years) and added to the operational emissions (Draft EIR page 4.5-16). Under CEQA, a lead agency has broad discretion to determine what methodology it will use to analyze GHG impacts. (CEQA Guidelines Section 15064.4, subd. (a)(1) [lead agencies may "select the model or methodology it considers most appropriate"]; see also *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal. App. 4th 327, 336.)

The Draft EIR discloses that the amount of GHG emissions associated with Project construction activities would be 7,463 MTCO2e (Draft EIR page 4.5-18.) This amount is below the 10,000 MT CO2e per year threshold that the Draft EIR considered.

The Draft EIR also calculated the GHG emissions associated with Project operations, which would be 2,223 MTCO2e per year (Draft EIR Table 4.5-3, page 4.5-19). The Draft EIR then amortized construction-phase emissions over the project's maximum 30-year operational life, which resulted in the addition of 243 MTCO2e per year (7,463 divided by 30 years) to the Project's operational GHG emissions. (Draft EIR at Table 4.5-3, page 4.5-19) The Draft EIR then amortized decommissioning-phase emissions of 4,580 MT CO2e over the project's maximum 30-year operational life, which resulted in the addition of 153 MT CO2e per year (4,580 divided by 30 years) to the Project's operational GHG emissions. (Draft EIR at Table 4.5-3, page 4.5-19) The combined annual operating and amortized construction and deconstruction phased emissions are 2,619 MT CO2e per year. (Draft EIR at Table 4.5-3, page 4.5-19)

Response to Comment 8-53: The commenter states that the Draft EIR does not analyze the change in GHG emissions resulting from the temporary use of the land for solar energy production and whether the electricity produced by the Project will supplant that generated by fossil fuel-based systems. In addition, the comment states that the Draft EIR ignores NOx threshold violations and focuses on CO2 equivalents.

As discussed in Draft EIR Section 4.5, Climate Change and Greenhouse Gases, primary GHG emissions from agriculture include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). The California Air Resources Board (ARB) performs an annual GHG inventory for emissions and sinks of the major GHGs. California produced 448.1 million metric tons (MT) of carbon dioxide equivalents (CO_2e) in 2011, and ARB estimates that agricultural category was 32 million MT CO_2e, or approximately 7% of the total statewide GHG emissions (ARB 2014a).

The crop history for the agricultural land on the Project site includes production of alfalfa, wheat, and grass. Sources of agricultural emissions from crop growing and harvesting include energy use (e.g., fuel combustion), crop residue burning, and soil management practices (fertilizer and manure applications). Estimates of GHG emissions related to agricultural activities are typically based on emissions from equipment exhaust, fertilizer application, and water consumption. Nitrogen fertilizers applied to crops release N_2O, and current methods estimate that approximately 50% of the nitrogen fertilizer applied in the field is lost as a result of volatilization, leaching, and runoff (ARB 2014b). Soil tillage also releases large quantities of CO_2 and N_2O into the atmosphere (ARB 2014c).

Carbon storage would reduce the overall agricultural emissions somewhat, but there is no definitive evidence that the agricultural operations are a net carbon sink. The carbon sequestration potential of agricultural lands, including farming management practices, is currently being evaluated for the potential in mitigating GHG emissions from the agricultural sector (Li et al. 2014). Furthermore, there is evidence that carbon storage potential of agricultural storage and soils is not permanent because the harvesting of annual crops release stored carbon. The capacity of soils to sequester carbon is limited and temporary, and soil carbon sequestration may actually increase emissions of N_2O and CH_4 depending on the management practices and soil types (ARB 2008).

Therefore, it would have been too speculative to conclude the existing agricultural land use was operating as a carbon sink or to provide a numerical estimate of existing GHG levels at the site. However, consistent with the ARB reports and GHG inventory it is likely that the current agricultural activities would result in a net positive amount of GHG emissions. Accordingly, to

provide a conservative analysis that does not underestimate the Project's GHG emissions, rather than assign a positive number to the GHG emissions existing at the site, the study properly assumed the GHG emissions under the existing conditions at the site were zero and the air quality model measured the Project's GHG impacts from this conservative baseline.

Supplanting Fossil Fuel Resources with Renewable Power Sources

The commenter states the County must ascertain whether the electricity produced would actually either (1) supplant electricity currently generated by fossil fuel based system, or (2) meet a future energy demand that would otherwise be met with fossil fuel-based generation.

First, it is important to clarify that the EIR does not rely on the ability of the Project to shut down an existing fossil fuel power plant or displace the need to meet future energy demand to justify its GHG analysis. Instead, the EIR's GHG analysis is based on its ability to demonstrate compliance with the GHG significance threshold the County has determined is applicable to comply with CEQA.

Second, the Project indirectly achieves these goals because the solar energy is a clean source of energy generated by a renewable resource (solar rays) instead of the burning of finite fossil fuels the emit GHGs into the air. Without the development of solar and other types of renewable energy in order to meet California's growing energy demands from a growing population, greater amounts of power would need to be produced by fossil fuel generation sources to meet the same demand. However, solar projects provide intermittent energy and, without additional technologies, may need to be supplemented with either base load plants or peaker power plants, some of which are fossil fuel burning plants. Opponents of large scale solar development sometimes view this as a failure to displace fossil fuel generation, but such views ignore the clean energy produced by solar development during the day. In this case, the Project's ability to displace fossil fuel based system and meet future energy demand that would otherwise be met with fossil-fuel based generation is greater because it includes an additional technology in the form of an on-site energy electric energy storage system. The energy storage system allows energy produced at the plant to provide energy to meet consumer demands for electrical power during the evening when the solar rays cannot generate power. Accordingly, the combined solar energy and energy storage features of the Project meet the consumer demand that would otherwise be met with a base load or peaker power plant operating on fossil fuel.

This response and rationale is also supported by energy experts at the California Public Utility Commission in a 2010 white paper entitled "Electric Energy Storage: An Assessment of Potential Barriers and Opportunities," (CPUC 2010). The paper explains:

> In the past, planners relied chiefly upon large dispatchable fossil fuel generators to provide electric energy. The energy from these facilities was transmitted over the bulk transmission system and ultimately consumed by end-use customers. However, this model is changing. California's current energy policies mandate the development of new types of renewable and distributed generation resources, such as wind and solar. These resources by their nature are intermittent and cannot be directly dispatched by system operators to meet customer load. Thus, if the state wants to properly plan for these new types of resources, the historic model of electric system planning must be re-thought. Since operators of the electricity grid must constantly match electricity supply and demand, intermittent renewable resources are more challenging to incorporate into the electricity grid than traditional generation technologies. Intermittent renewable technologies cannot be scheduled to produce power in specific amounts at specific times,

creating additional challenges and costs to resource procurement. Moreover, as more intermittent resources are deployed to meet increasing Renewable Portfolio Standards ("RPS") requirements, the operational challenges will become greater. Specifically, since planners cannot control when renewable generation will occur, the generation can often occur at times when there is little need for that power. However, a promising new set of Electric Energy Storage ("EES") technologies appear to provide an effective means for addressing the growing problem of reliance on an increasing percentage of intermittent renewable generation resources.

In the past, it was difficult, if not impossible, to store large amounts of electricity. There were two main barriers: economic (too expensive) and technological (inefficient, impractical). Recent advancements have been achieved and certain storage technologies have progressed through successful pilot and demonstration phases. As such, these technologies are poised to become commercially viable. EES offers California multiple economic and environmental benefits. By utilizing EES technologies to store intermittent renewable power, the state may reduce greenhouse gas emissions from carbon-based electricity production, avoid the need to build expensive new transmission lines and power plants to meet peak energy demand, increase system reliability and generate economic activity through the manufacturing and operation of these EES technologies. (CEC White Paper at pp. 1-2.)

Analysis Ignores Significant NOx Threshold Analysis

The comment states that the Draft EIR ignores nitrogen oxide (NOx) threshold violations and instead focuses on CO2-equivalents (CO2e) emissions. The comment further states that the Draft EIR ignores this fact, in violation of CEQA. The comment provides no information or supporting evidence to indicate that violations of the daily air quality standard should be considered in the GHG analysis.

The air quality analysis in the Draft EIR indicates that construction-generated NOx emissions for the Project would exceed the applicable daily emission thresholds. Therefore, without mitigation, construction of the Project would result in a potentially significant impact to regional air quality. (Draft EIR pages 4.4-25 and 4.4-26) The Project would require implementation of mitigation measures MM 4.4.1a, MM 4.4.1b, MM 4.4.1c and MM 4.4.1d to reduce construction-related NOx emissions.

Construction-related GHG emissions associated with the Project were quantified using the California Emissions Estimator Model (CalEEMod) Version 2013.2.2. That model is recommended for use by the SCAQMD and ICAPCD for analysis of GHG emissions. CalEEMod estimates carbon dioxide, methane, and nitrous oxide emissions, as applicable, for a proposed project. The concept of CO2e is used to account for the different global warming potentials (GWP) of GHGs to absorb infrared radiation. Therefore, the use of CO2e emissions incorporates the impacts of several GHGs and is considered conservative for the analysis included in the Draft EIR. Estimates of GHG emissions included in the Draft EIR are consistent with the methodologies and recommendations from the ARB, SCAQMD, and ICAPCD for pollutants that should be considered in the GHG analysis.

Response to Comment 8-54: The comment provides closing remarks again reiterating that the proposed Project is forbidden on land designated as "Agriculture" and that the County may not approve the Project. These issues have been previously addressed. Refer to Response to Comment 8-5, 8-9 and 8-11.

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