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Via email and overnight delivery

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**Re: Comment re: Draft Environmental Impact Report for the
Beacon Photovoltaic Project by Beacon Solar LLC
SCH # 2012011029
Conditional Use Permit 11, Map 152
PP 12213**

Dear Ms. Brauer:

This letter is submitted on behalf of **Laborers International Union of North America, Local 220**, and its members living in Kern County ("LIUNA Local 220" or "Commenters") regarding the proposed Draft Environmental Impact Report ("DEIR") for the Beacon Photovoltaic Project by Beacon Solar LLC ("Project"), SCH# 2012011029, Conditional Use Permit ("CUP") 11, Map 152, PP 12213. **Please put this Office on the mailing list for all California Environmental Quality Act ("CEQA") and local land use notices for the Project.** After reviewing the DEIR together with our team of expert consultants, it is evident that the document contains numerous errors and omissions that preclude accurate analysis of the Project. As a result of these inadequacies, the DEIR fails as an informational document, fails to identify environmentally superior Project alternatives, and fails to impose feasible mitigation measures to reduce the Project's impacts.¹

In particular, the DEIR has the following deficiencies:

1. The DEIR erroneously concludes that the Project is consistent with the General Plan. The DEIR also fails to include and evaluate

¹ We reserve the right to supplement these comments at later hearings and proceedings for this Project. See *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109.

whether the Project is consistent with key provisions of the General Plan.

2. The DEIR fails to analyze the cumulative urban decay impacts of the Project. The Beacon Photovoltaic Project in conjunction with other past, present, and future projects in the area will permanently convert over 31,000 acres of land to solar development. These large changes in the use of land has the potential to result in regional disinvestment in the built environment (e.g., structures). Furthermore, when viewed cumulatively, the increasing amount of land used in PV projects suggests an increase in the likelihood of disinvestment in local housing in particular and deterioration of structures generally.
3. The DEIR fails to adequately analyze and mitigate for risks of widespread abandonment of the Beacon Photovoltaic Project as well as other solar projects. The proposed mitigation measure, the Decommissioning Plan, has numerous issues associated with it that makes it ineffective including it does not appear that the County has the power to require compliance and the financial assurance instrument may not withstand bankruptcy.
4. The DEIR fails to adequately identify, analyze, and mitigate all potentially significant impacts to biological resources.
 - a. The DEIR fails to adequately analyze impacts to golden eagles and wildlife movement corridors.
 - b. In several instances, the DEIR improperly proposes inadequate and deferred mitigation measures, including:
 - i. Failing to identify suitable land parcels for compensatory mitigation for permanent impacts to western burrowing owls;
 - ii. Failing to formulate the details of the Habitat Mitigation and Monitoring Plan that would address impacts to desert tortoise, western burrowing owl, and Mohave ground squirrel; and
 - iii. Failing to provide for adequate mitigation to address cumulative impacts to biological resources.
 - c. The DEIR fails to provide for monitoring of avian collision fatalities.
5. The DEIR fails to adequately identify, analyze, and mitigate all potentially significant impacts to air quality. In particular, the DEIR's analysis of the Project's PM10 and NOx emissions are inadequate.
6. The DEIR fails to adequately analyze impacts to hydrology and water quality. The DEIR fails to analyze toxic chemical impacts related to cadmium telluride. The DEIR also fails to address potential violations of water quality standards and waste discharge requirements.

7. The DEIR fails to establish a baseline for soil conditions at the site. A Phase I is needed to evaluate past pesticide use and any potential for pesticide residuals in the soil in light of the fact that the Project site land was formerly used for agricultural activities. This analysis is needed to protect workers.
8. The DEIR fails to adequately analyze cumulative impacts to land, The DEIR impermissibly narrows the scope of projects considered for cumulative impacts to land to 24 solar projects. The analysis fails to also evaluate the cumulative impacts of 46 additional solar projects and 19 wind projects in the area.
9. The DEIR fails to identify a reasonable range of alternatives.
 - a. Alternative B (General Plan Buildout Alternative) is not a reasonable alternative because it does not meet any of the Project objectives.
 - b. Therefore, the DEIR only evaluates 2 alternatives (Alternative A - the No Project Alternative and Alternative C - the Distributed Commercial and Industrial Rooftop Solar Only Alternative). This does not meet the CEQA standard of evaluating a reasonable range of alternatives.
 - c. The DEIR fails to adequately explain why the Environmentally Superior Alternative (Alternative C) is not feasible.
 - d. The DEIR should consider how the Project and the Alternatives will impact ratepayers.

We have prepared these comments with the assistance of Michael Kavanaugh, Ph.D in economics. His comments and curriculum vitae are attached hereto as an exhibit and are incorporated by reference in their entirety. We have also obtained the consultation of Matt Hagemann, P.G, C.Hg., an expert hydrologist. His comments are attached as an exhibit hereto and are incorporated herein by reference in their entirety. Each of Dr. Kavanaugh's and Mr. Hagemann's comments requires separate response in the Final EIR.

LIUNA Local 220 recognizes that the development of renewable energy is critical for the reduction of greenhouse gas emissions. Renewable energy is essential to forestall the worst consequences of climate change and to help the state of California meet its ambitions emissions reductions goals. LIUNA Local 220 supports the development of renewable energy production, including the development of solar power generation through both appropriately sited solar "farms" and distributed solar power generation. All solar power projects must be properly sited and carefully planned to minimize impacts on the environment. Renewable energy projects should avoid impacts to sensitive species and

habitats, and should be sited in proximity to electricity consumers to reduce the costs and impacts associated with new transmission corridors. Only by maintaining the highest standards in these and other ways can renewable energy production be truly sustainable. Unfortunately, the proposed project falls short in these and other ways. As a consequence, the DEIR will need to be revised and recirculated, as set forth below.

I. BACKGROUND

The Project would cover approximately 2,301 acres of land in Kern County - approximately one mile southwest of the unincorporated town of Cantil/Rancho Seco, four miles from California City, and 15 miles north of the unincorporated town of Mojave and would generate up to 250 Megawatts (MW) of electricity from an estimated 972,000 solar photovoltaic (PV) panels. (DEIR, p. 1-1). The majority of the Project site is located on exclusive agriculture or limited agriculture land. The Project would preclude agricultural production at the site for the life of the project, which will last at least 35 years; however, the loss of land for other uses (e.g., habitat and agriculture) will be permanent. The proposed decommissioning plan is ineffective because, inter alia, it does not appear that the County has the power to require compliance and the financial assurance instrument may not withstand bankruptcy.

Portions of the Project site are designated as seismic and flood hazard areas. To comply with Land Use Ordinance, the Applicant is seeking a Conditional Use Permit (CUP).

Other site features include electrical combiners, power inverters, and mid-voltage transformer; on-site substation; O&M building and associated septic system; solar meteorological station; perimeter security fencing; and potential solar tracking system. The Project includes a total of two miles of above-ground transmission lines. (DEIR, p. 3-17). The power poles would be an average of 79 feet in height with a maximum of 110 feet, with a span of length averaging roughly 500 feet.

The Project is expected to be constructed over a period of up to 20 months. (DEIR, p. at 3-19). Construction-related features will include security lighting, office trailer, and use of groundwater wells. (DEIR, p. 3-19-3-20). Additional details of construction-related features are not included in the DEIR (e.g., waste management, fuel and other hazardous material storage, and storage). Construction-related impacts include mowing or clearing or trimming of existing vegetation, grading associated with the installation of aggregate base access roads, and use of less than 304 acre-feet of water. (DEIR, p. 3-19 - 3-20).

Once the Project is constructed, ongoing activities will include regular usage and trips to and from the site by 5-10 workers 5 days a week. (DEIR, p. 3-22). Panel washing for a total of 135 to 145 days per year is required and would be completed by 2-5 additional staff. (DEIR, p. 3-22). Regular maintenance would include responding to plant failures/emergencies and routine maintenance. (DEIR, p. 3-22). Operations would continue at the site for at least 35 years. (DEIR, p. 3-22). The DEIR states that after that period, the site might be decommissioned (e.g., the system technology could be updated, it could be converted to other uses). (DEIR, p. 3-22).

It cannot be disputed that this is a very large project that will have permanent impacts on the land at the project site and contribute to significant cumulative changes to Kern County. The impact of the loss of the agricultural land has cultural, demographic, and economic consequences. While economic analysis is not always part of an EIR, if the Project causes changes to the physical environment as a result of a project's economic effects than the effect are deemed as an indirect effect and must be analyzed in an EIR. Case law has included urban decay as an indirect effect that must be analyzed under CEQA.

Given the number of other solar projects proposed for Kern County and their effectively permanent change on the landscape and character of the County, the Cumulative Impacts are undeniably immense. Alone, a 2,301-acre solar farm will unquestionably have extensive, significant impacts. However, when considered cumulatively with other past, present, and foreseeable projects converting agricultural land to non-agricultural uses in Kern County, there is no credible way to conclude that the Project's impacts are less than significant under CEQA.

II. STANDING

LIUNA Local 220 has members who live, work, and recreate in the immediate vicinity of the Project site. These members will suffer the impacts of a poorly executed or inadequately mitigated Project, just as would the members of any nearby homeowners association, community group or environmental group. Hundreds of LIUNA Local 220 members live and work in areas that will be affected by traffic, air pollution, and water pollution generated by the Project.

In addition, construction workers will suffer many of the most significant impacts from the Project as currently proposed, such as from air pollution emissions from poorly maintained or controlled construction

equipment, possible risks related to hazardous materials on the Project site, and other impacts. Therefore, LIUNA Local 220 and its members have a direct interest in ensuring that the Project is adequately analyzed and that its environmental and public health impacts are mitigated to the fullest extent feasible.

III. LEGAL STANDARDS

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an environmental impact report ("EIR") (except in certain limited circumstances). (See, e.g., Pub. Res. Code § 21100.) The EIR is the very heart of CEQA. (*Dunn-Edwards v. BAAQMD* (1992) 9 Cal.App.4th 644, 652.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Environment v. Calif. Resources Agency* (2002) 103 Cal. App. 4th 98, 109.)

CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project. (14 Cal. Code Regs. ("CEQA Guidelines") § 15002(a)(1).) "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR 'protects not only the environment but also informed self-government.'" (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564). The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." (*Berkeley Keep Jets Over the Bay v. Bd. of Port Comm'rs.* (2001) 91 Cal. App. 4th 1344, 1354 ("Berkeley Jets"); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810).

Second, CEQA requires public agencies to avoid or reduce environmental damage when "feasible" by requiring "environmentally superior" alternatives and all feasible mitigation measures. (CEQA Guidelines § 15002(a)(2) and (3); See also, *Berkeley Jets*, 91 Cal. App. 4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564). The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to "identify ways that environmental damage can be avoided or significantly reduced." (Guidelines §15002(a)(2)). If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable

significant effects on the environment are "acceptable due to overriding concerns." (Pub.Res.Code § 21081; 14 Cal.Code Regs. § 15092(b)(2)(A) & (B)).

While the courts review an EIR using an "abuse of discretion" standard, "the reviewing court is not to 'uncritically rely on every study or analysis presented by a project proponent in support of its position. A 'clearly inadequate or unsupported study is entitled to no judicial deference.'" (*Berkeley Jets*, 91 Cal. App. 4th 1344, 1355 (emphasis added), quoting, *Laurel Heights Improvement Assn. v. Regents of University of California*, 47 Cal. 3d 376, 391 409, fn. 12 (1988)). As the court stated in *Berkeley Jets*, 91 Cal. App. 4th at 1355:

A prejudicial abuse of discretion occurs "if the failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process." (*San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal. App. 4th 713, 722]; *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal. App. 4th 1109, 1117; *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal. App. 4th 931, 946).

IV. THE PROJECT IS FATALY INCONSISTENT WITH THE COUNTY'S GENERAL PLAN, VIOLATING CEQA AND LAND USE LAW.

The County must treat its analysis of conflicts with the General Plan seriously and land use decisions must be consistent with the plan. (CEQA Guidelines, App. G, Evaluation of Environmental Impacts; Guidelines § 15125(d); Gov. Code § 65860(a)). The General Plan is intended to be the "constitution for all future developments" in Kern County, a "charter for future development," that embodies "fundamental land use decisions that guide the future growth and development of cities and counties." (*Families Unafraid to Uphold Rural El Dorado County v. Board of Supervisors of El Dorado County* (1998) 62 Cal.App.4th 1334, 1335; *Leshar Communications, Inc. v. City of Walnut Creek* (1990) 52 Cal.3d 531,54; *City of Santa Ana v. City of Garden Grove* (1979) 100 Cal.App.3d 521,532). The "propriety of virtually any local decision affecting land use and development depends upon consistency with applicable general plan and its elements." (*Citizens of Goleta Valley v. Board of Supervisors of County of Santa Barbara* (1990) 52 Cal.3d 553, 570). The consistency doctrine has been described as the "linchpin of California's land use and development laws; it is the principal which infuses the concept of planned

growth with the force of law." (*Corona-Norco Unified School District v. City of Corona* (1993) 17 Cal.App.4th 985, 994).

A project's impacts may be deemed significant if they are greater than those deemed acceptable in a general plan. (*Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1416). A significant impact on land use and planning would occur if the project would "[c]onflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect." (CEQA Guidelines Appendix G, § IX(b)).

According to the CEQA Guidelines, "environmental effects" include direct and indirect impacts to land use and planning. Where the plan or policy was adopted to avoid negative environmental effects, conflicts with the plan or policy constitutes a significant negative impact. (*Oro Fino Gold Mining Corp. v. Co. of el Dorado* (1990) 225 Cal.App.3d 872, 881-882; see also *Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal.App.4th 777, 783-4; *County of El Dorado v. Dept. of Transp.* (2005) 133 Cal.App.4th 1376; CEQA Guidelines, App. G, § IX(b)). Thus, under CEQA, a project results in a significant effect on the environment if the project is inconsistent with an applicable land use plan, policy or regulation adopted for the purpose of avoiding or mitigating one or more of these environmental effects.

The DEIR fails to conduct a complete and forthright consistency analysis with the Kern County General Plan and its Elements. The DEIR must be revised to analyze inconsistencies, identify appropriate mitigations, or set the foundation for a finding of overriding considerations.

A. The DEIR is Inconsistent With Section "1.3 Physical and Environmental Constraints" of the General Plan

The Project site includes Kern County General Plan land use designations of 2.1 – Seismic Hazard and 2.5 – Flood Hazard. (DEIR p. 4.9-1). When evaluating whether the Project is consistent with the Kern County General Plan section 1.3 Physical and Environmental Constraints (see DEIR, p. 4.9-19), the DEIR fails to include the overarching goal of these designated lands. Namely, the goal is "[t]o strive to prevent loss of life, reduce personal injuries, and property damage, minimize economic and social diseconomies resulting from natural disaster by directing development to areas which are not hazardous." (Kern County General Plan, Land Use, Open Space, and Conservation Element, p. 11). The

Project is not consistent with this goal because it sites new development in seismic and flood hazard areas.

Similarly, the DEIR fails to include and evaluate whether the Project is consistent with Policy 1:

Kern County will ensure that new developments will not be sited on land that is physically or environmentally constrained ((Map Code 2.1 (Seismic Hazard), Map Code 2.2 (Landslide), Map Code 2.3 (Shallow Groundwater), Map Code 2.5 (Flood Hazard), Map Codes from 2.6 – 2.9, Map Code 2.10 (Nearby Waste Facility), and Map Code 2.11 (Burn Dump Hazard)) to support such development unless appropriate studies establish that such development will not result in unmitigated significant impact.

(Kern County General Plan, Land Use, Open Space, and Conservation Element, p. 12). The default position is that new development is not permitted in seismic and flood hazard areas thereby making the Project inconsistent with this policy. However, development is permitted when “appropriate studies establish such development will not result in unmitigated significant impact.” The DEIR fails to cite to any “appropriate studies establish[ing] such development will not result in unmitigated significant impact.”

The DEIR includes an inadequate discussion of Policy 2. Policy 2 provides that “new development will not be permitted in hazard areas in the absence of implementing ordinances and programs. These ordinances will establish conditions, criteria and standards for the approval of development in hazard areas.” (Kern County General Plan, Land Use, Open Space, and Conservation Element, p. 12). In evaluating whether the Project is consistent with Policy 2, the DEIR states the following:

Consistent with this policy, the proposed project would develop a solar PV power generating facility that is not located on a hazardous site. Final review of the proposed project by the Kern County Planning and Community Development Department, as well as adherence to all applicable local, state and federal regulations, would ensure that the proposed project would not pose significant environmental or public health and safety hazards. (emphasis added).

(DEIR, p. 4.9-19). The first sentence of the consistency analysis is not accurate. The Project is in fact located on a seismic and flood hazards area. The second sentence fails to adequately explain how the Project meets Policy 2. Namely, has the County implemented ordinances that establish conditions, criteria, and standards for approval of development in hazard areas? If so, what are those conditions, criteria, and standards.

The DEIR fails to provide mitigation measures as required by Policy 10. Policy 10 provides:

The County will allow lands which are within flood hazard areas, other than primary floodplains, to be developed in accordance with the General Plan and Floodplain Management Ordinance, if mitigation measures are incorporated so as to ensure that the proposed development will not be hazardous within the requirements of the Safety Element (Chapter 4) of this General Plan. (emphasis added).

(Kern County General Plan, Land Use, Open Space, and Conservation Element, p. 13). Under this General Plan Policy, lands within flood hazard areas can only be developed if mitigation measures are incorporated to ensure development will not be hazardous. The DEIR fails to include and articulate required mitigation measures.

B. The DEIR is Inconsistent With Section “1.9 Resource” of the General Plan

The DEIR fails to adequately analyze conflicts with General Plan Section 1.9 Resource. Section 1.9 states, “[c]onflicts over the use of agricultural land frequently occur. As is the case for other urbanizing regions, the loss of valuable agricultural lands to urban development is a prime concern.” The Project would result in the loss of valuable agricultural lands and therefore would appear to be inconsistent with this provision.

The DEIR fails to include and evaluate Policy 2, which states “[p]rotect areas of important mineral, petroleum, and agricultural resource potential for future use.” This project is inconsistent with this policy because it removes agricultural land from current and future use.

The 1.9 Resource section of the General Plan articulates uses for different map coded areas. The Project includes Map Code 8.1 (Intensive Agriculture) and Map Code 8.5 (Resource Management). The General Plan lists the following allowable uses for the Intensive Agriculture areas:

Irrigated cropland; orchards; vineyards; horse ranches; raising of nursery stock ornamental flowers and Christmas trees, fish farms, bee keeping, ranch and farm facilities and related uses, one single-family dwelling unit; cattle feed yards; dairies; dry land farming; livestock grazing; water storage; groundwater recharge acres; mineral; aggregate; and petroleum exploration and extraction; hunting clubs; wildlife preserves; farm labor housing; public utility uses; and agricultural industries pursuant to provisions of the Kern County Zoning Ordinance, and land within development areas subject to significant physical constraints.

(Kern County General Plan, Land Use, Open Space, and Conservation Element, p. 53). This list could but does not include solar generating facilities. Under the doctrine of *expressio unius est exclusio alterius*, solar generating facilities are not permitted on Intensive Agriculture lands, which makes the Project inconsistent with the General Plan. Similarly, the General Plan sets forth the allowable uses for Resource Management areas as well as provides a description of the areas as follows:

Primarily open space lands containing important resource values, such a wildlife habitat, scenic values, or watershed recharge areas. These areas may be characterized by physical constrains, or may constitute an important watershed recharge area or wildlife habitat or may have value as a buffer between resource areas and urban areas. Other lands with this resource attribute are undeveloped, non-urban areas that do not warrant additional planning within the foreseeable future because of current population (or anticipated increase), marginal physical development, or no subdivision activity...Uses shall include, but are not limited to, the following: Recreational activities; livestock grazing; dry land farming; ranching facilities; wildlife and botanical preserves; and timber harvesting; one single-family dwelling unit; irrigated croplands; water storage or groundwater recharge areas; mineral; aggregate; petroleum exploration and extraction; open space and recreational uses; one single-family dwelling on legal residentially zoned lots on effective date of this General Plan; land within development areas subject to physical constraints; State and federal lands which have been converted to private ownership.

(Kern County General Plan, Land Use, Open Space, and Conservation Element, p. 54-55). This list could but does not include solar generating facilities. By inference, solar generating facilities are not permitted on Intensive Agriculture lands, which makes the Project inconsistent with the General Plan.

The Project is inconsistent with Policy 3 which provides that "[t]he County will support programs and policies that provide tax and economic incentives to ensure the long-term retention of agriculture, timber, and other resource lands." (Kern County General Plan, Land Use, Open Space, and Conservation Element, p. 55). In evaluating whether the project is consistent with this policy, the DEIR states "[p]lacement of a solar PV power generating facility at the project site is compatible with open space and other resource management land uses..." (DEIR, p. 4.9-21). This statement is not true. Solar farm development is not compatible with agricultural production. In fact, the California Department of Conservation has determined in similar cases that proposed solar development on agricultural lands are "completely incompatible" with on-site agricultural uses (see attached exhibit).

V. THE DEIR FAILS TO ADEQUATELY IDENTIFY, ANALYZE, AND MITIGATE ALL POTENTIALLY SIGNIFICANT IMPACTS

CEQA requires that an agency identify and analyze potential impacts of its proposed actions in an EIR (except in certain limited circumstances). (See, e.g., Pub. Res. Code § 21100). The EIR is the very heart of CEQA. (*Dunn-Edwards v. BAAQMD* (1992) 9 Cal.App.4th 644, 652). "The 'foremost principle' in interpreting CEQA is that the Legislature intended to act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Environment v. Calif. Resources Agency* (2002) 103 Cal.App.4th 98, 109).

An EIR must also identify and describe mitigation measures to minimize significant environmental effects. (Pub. Res. Code §§ 21002.1(a), 21100(b)(3); 14 Cal. Code Regs. § 15126.4, CEQA Guidelines § 15002(a)(2) and (3); See also, *Berkeley Jets*, 91 Cal.Ap.4th 1344, 1353; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564). The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to "identify ways that environmental damage can be avoided or significantly reduced." (Guidelines §15002(a)(2)). If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has "eliminated or substantially lessened all significant effects on the

environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns." (Pub.Res.Code § 21081; 14 Cal.Code Regs. § 15092(b)(2)(A) & (B)).

CEQA disallows deferring the formulation of mitigation measures to post-approval studies. (CEQA Guidelines § 15126.4(a)(1)(B); *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 308-309). Feasible mitigation measures for significant environmental effects must be set forth in an EIR for consideration by the lead agency's decision makers and the public before certification of the EIR and approval of a project.²

The formulation of mitigation measures generally cannot be deferred until after certification of the EIR and approval of a project. CEQA Guidelines Section 15126.4(a)(1)(B) states: "...[f]ormulation of mitigation measures should not be deferred until some future time. However, measures may specify performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way." An agency may only defer the formulation of mitigation measures when it possesses "'meaningful information' reasonably justifying an expectation of compliance." (*Sundstrom* at 308; see also *Sacramento Old City Association v. City Council of Sacramento* (1991) 229 Cal.App.3d 1011, 1028-29 (mitigation measures may be deferred only "for kinds of impacts for which mitigation is known to be feasible"))).

A lead agency is precluded from making the required CEQA findings unless the record shows that all uncertainties regarding the mitigation of impacts have been resolved; an agency may not rely on mitigation measures of uncertain efficacy or feasibility (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727 (finding groundwater purchase agreement inadequate mitigation because there was no evidence that replacement water was available).) This approach helps "insure the integrity of the process of decisionmaking by precluding stubborn problems or serious criticism from being swept under the rug."

² "Deferral of the specifics of mitigation is permissible where the local entity commits itself to mitigation and lists the alternatives to be considered, analyzed and possibly incorporated in the mitigation plan. [Citation.] On the other hand, an agency goes too far when it simply requires a project applicant to obtain a biological [or other] report and then comply with any recommendations that may be made in the report." (*Defend the Bay v. City of Irvine* (2004) 119 Cal.App.4th 1261, 1275.) "If mitigation is feasible but impractical at the time of a general plan or zoning amendment, it is sufficient to articulate specific performance criteria and make further approvals contingent on finding a way to meet them." (*Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal.App.4th 777, 793).

(*Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist. Agricultural Assn.* (1986) 42 Cal.3d 929, 935).

However, a lead agency's adoption of an EIR's proposed mitigation measure for a significant environmental effect that merely states a "generalized goal" to mitigate a significant effect without committing to any specific criteria or standard of performance violates CEQA by improperly deferring the formulation and adoption of enforceable mitigation measures. (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 670; *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 93 ("EIR merely proposes a generalized goal of no net increase in greenhouse gas emissions and then sets out a handful of cursorily described mitigation measures for future consideration that might serve to mitigate the [project's significant environmental effects."]).

The Comments provided below are supplemental to and in accord with those provide by Dr. Kavanaugh and Mr. Hagemann, LIUNA Local 220's expert consultants. The comments provided by Dr. Kavanaugh and Mr. Hagemann require individual responses in the Response to Comments as well.

A. The DEIR Fails to Adequately Analyze Urban Decay

1. CEQA Requires Analysis of Urban Decay

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an EIR (except in certain limited circumstances). (See, e.g., Pub. Res. Code § 21100). In general, "[e]conomic and social changes resulting from a project shall not be treated as significant effects on the environment" and therefore analysis in an EIR is not required. (14 Cal. Code Reg. § 15064(e)). However, if the Project causes changes to the physical environment as a result of a project's economic effects than the effect are deemed an indirect effect and must be analyzed in an EIR. (*Id.*). Case law has included urban decay as an indirect effect that must be analyzed under CEQA.

In *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) (124 Cal.App.4th 1184), the Court expressly held that an EIR must analyze a project's potential to cause urban decay if there is substantial evidence showing that the project may lead to such impacts. The court pointed out that CEQA requires the project proponent to discuss the project's economic and social impacts where "[a]n EIR may trace a chain of cause and effect from a proposed decision on a project through

anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic and social changes.” (CEQA Guidelines §§ 15131(a) and 15064(f)).

Bakersfield Citizens concerned a proposal to construct two WalMart Stores within 3 miles of each other. Evidence was submitted that the stores could cause urban decay by forcing local downtown stores to close. The court held that this impact must be analyzed in the EIR. Most of the cases cited by the *Bakersfield Citizens* court concerned other retail developments with alleged urban decay impacts. (See, *Citizens Assoc. for Sensible Dev. of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151, 170-171 (shopping mall threatens downtown businesses and urban decay); *Citizens for Quality Growth v. City of Mt. Shasta* (1988) 198 Cal.App.3d 433, 445-446 (shopping mall may cause “business closures” in downtown area); *Friends of Davis v. City of Davis* (2000) 83 Cal.App.4th 1004, 1019 (insufficient evidence that Borders bookstore may threaten local bookstores); see also, *Anderson First Coalition v. City of Anderson* (2005) 30 Cal.Rptr.3d 738 (shopping center); *American Canyon Community United for Responsible Growth v. City of American Canyon* (2006) 145 Cal.App.4th 1062, 1074 (urban decay impacts of supercenter must be analyzed); *Gilroy Citizens for Responsible Planning v. City of Gilroy* (2006) 140 Cal.App.4th 911, 920 (EIR adequately analyzed urban decay impacts of supercenter)).

The *Bakersfield Citizens* court also cited an industrial and a prison project that were alleged to have blighting impacts. The court noted that in *Christward Ministry v. Superior Court* (1986) (184 Cal. App. 3d 180, 197) (*Christward Ministry*) an agency was required to analyze in the EIR the potential that odors, noise, and traffic from a garbage dump could adversely impact a nearby religious retreat center. The *Bakersfield Citizens* court noted that this was a type of “urban blight” impact. The court also noted that in *City of Pasadena v. State of California* (1993) (14 Cal.App.4th 810) the “blighting” impact of a parole office on a nearby residential neighborhood was recognized (however the court held that insufficient evidence had been presented to establish that the parole office may have an urban blight impact).

Finally, the *Bakersfield Citizens* court recognized that cumulative blight impacts must be considered. In other words, it is necessary to analyze the blight impacts of the proposed project together with other past, present and future projects in the area. (124 Cal.App.4th at 1193).

2. The DEIR Failed to Analyze the Cumulative Urban Decay Impacts of the Project

As discussed below, the Project will likely result in cumulative urban decay impacts that should be analyzed in the DEIR.

The Beacon Photovoltaic Project is part of a massive county-wide movement to convert primarily agricultural land to large-scale solar developments. The Beacon Photovoltaic Project will convert 2,298 acres of land designated exclusive agriculture and limited agriculture. The DEIR identified several approved, proposed, and reasonably foreseeable large-scale projects in the vicinity of the Beacon Photovoltaic Project that will convert over 31,000 acres (about 50 square miles). (DEIR, p. 3-26 - 3-28).

This conversion of primarily agricultural land will likely lead to significant economic effects including urban decay. According to Mr. Kavanaugh

Land is a traditional economic input and these are large changes in its use. The changes signal that an economic change is underway in the local economy. This economic change is being driven by the PV projects. They are foreclosing, perhaps permanently, employment and earning opportunities from certain (e.g., agricultural) uses of land.³

Although no cumulative effect of these changes is at hand, it is a fair to say that taken together the PV projects will test the strength of several local markets to adjust to the foreclosed opportunities -- initially for labor and then for commercial and residential structures.⁴ These adjustments will take different forms including out migration from the local area for labor and deterioration of structures (both commercial and residential) within the local area.

³ As is well established, the plants and animals that use this land do not have purchasing power to use to bid the land's use away from PV users. Accordingly, market prices alone are insufficient to assure that the land is being used efficiently.

⁴ There is a continual flow of workers through labor markets. The average duration of a job is three to five years. Equivalently, one-third to one half of the labor force is searching for a job. The composition of this flow while mostly young and unskilled workers does have a component of experienced workers searching for jobs and older workers returning to the labor force for a variety of reasons (for example: no longer raising children; reentering labor force after schooling; after caring for family members; or, ending a period of military service). (See: *Microeconomic Foundations of Employment and Inflation Theory*, E. Phelps, et al.

PV projects require few workers per acre. An expanding use of land for PV projects -- from Beacon and when coupled with past and probable future losses of acreage for other PV projects -- has the potential to put downward pressure on local employment and labor earnings (including agricultural income and employment). Unlike labor, which can move to another location, structures -- both residential and commercial -- are immobile. Structures, if left vacant or not maintained, will deteriorate.

Workers searching in a stagnating labor market will find that it will take longer to find new work and finding new work may involve leaving the area. This will bring about declines in local income. While declines in income may be met with variety of responses, income reductions generally result in reductions in spending and draw downs of savings. The reduction in spending may take many forms including but not limited to: reductions in home maintenance and delinquencies on mortgages. These factors may lead to deterioration of residential and commercial structures.

Although the PV projects have the potential to cause structural deterioration in the local area, mitigation measures may be able to slow or arrest the decline. To identify and design mitigation measures requires, *inter alia*, an understanding of the economic changes that are occurring to identify points of intervention. One set of measures, and there may be other sets, would apply performance standards to proposed PV projects. Another set of measures would condition use permits to achieve operating standards or be dismantled and removed. Strong, arms-length instruments would financially assure the site's decommissioning.⁵

The DEIR is a ready vehicle for this work. It could identify the cumulative changes in land use; consider the impacts on the constructed environment; determine if mitigations measures are needed; and, propose mitigation options.

Mr. Kavanaugh prepared the following table using data from DEIR's Cumulative Projects List and data from the Notices of Preparation issued

⁵ Financial assurances are discussed in more detail in the next section of these comments.

by Kern County.⁶ (DEIR, p. 3-26 - 2-28). The table "shows the MW claimed by the projects' designers, the total acres needed for the project; and, how many acres are needed per MW."

Kern Cty.	MW	Total	
		Acres	AC/MW
Antelope Valley	650	3544	5.45
Distributed	214	1709	7.99
Catalina (eXco) - solar portion	150	1441	9.61
Edwards AFB	450	4000	8.89
Fremont Valley	1000	9000	9.00
Tenaska	100	700	7.00
Millennium	250	1760	7.04
Cantil	8	34	4.25
Monte Vista	126	1040	8.25
Desert Solar - Site 1	100	611	6.11
Site 2 both phases	96	548	5.71
Kingbird	40	324	8.10
Willow Springs	160	1402	8.76
Weldon	60	500	8.33
Rosamond	155	1177	7.59
Pioneer Green	35	240	6.86
	20	160	8.00
	70	320	4.57
Old River #1	20	188	9.40
#2	5	33	6.60
Nautilus	18	150	8.33
High Desert	18	154	8.56
Sub total	3783	29510	7.80
Beacon Solar	250	2298	9.19
Total	4033	31808	7.89

Sources: Kern County Notice of Preparations
 Kern County DEIRs for Beacon; Distributed
 Project

⁶ *Notices of Preparation*, Kern County, available at
<http://www.co.kern.ca.us/planning/noticeprep.asp>.

When the Beacon Photovoltaic Project is compared to other solar projects in the area, the Beacon Photovoltaic Project is an underperforming solar project in terms of acres required to produce MW. According to Mr. Kavanugh,

The data show Beacon will be an under performing PV project when measured by its consumption of land. Beacon requires more acres to make a MW than any other PV project in the area except for Old River #1 and the solar portion of Catalina (eXco).⁷ In turn, this suggests that Beacon when compared to other projects is less efficient in its resource use; may contribute more to structural deterioration in the local area; and, has increased vulnerability to policy or economic changes.

According to Mr. Kavanugh, the land use changes will likely lead to urban decay including deteriorating structures. In pertinent part, Mr. Kavanugh states

Land is a traditional factor of production that when combined with other factors like labor can provide local earnings (e.g., agriculture). Beacon -- like other PV projects -- uses a large amount of land to employ relatively few. Beacon, however, is at an extreme in its use of land. Beacon -- relative to other PV projects -- has more potential to foreclose local earnings and employment and more potential to result in regional disinvestment in the built environment (e.g., structures) than previous PV projects. Furthermore, when viewed cumulatively, the increasing amount of land used in PV projects suggests an increase in the likelihood of disinvestment in local housing in particular and deterioration of structures generally.

A typically disinvestment process proceeds as follows. Reductions in earnings result in across the board reductions in spending including reduction in spending for maintenance of structures. Reductions in maintenance causes structures to deteriorate and their value in exchange (the market price) declines. Falling market prices for existing structures may cause the prices of some structures to fall below their outstanding mortgage amounts. Falling market prices also influence valuations of neighboring property whose value

⁷ The Rider Ridge project used more acres to make a MW but is no longer proposed.

may fall below their outstanding mortgage amounts. This may lead to delinquencies and foreclosures and another round of price declines.

Sometimes declines in market prices signal would-be buyers to become active and look for bargains. This can slow a disinvestment process. This has happened in some neighborhoods in urban areas. When successful, the deteriorating of structures in some neighborhoods is slowed, halted and reversed. Reinvestment occurs. Deteriorating structures in remote locations, however, are less likely to attract bargain hunters than similar structures in urban locations. In consequence, the disinvestment process may continue as declining structure prices induces further reductions in maintenance, which further depresses prices and induces further deferrals of maintenance.

In some urban areas the disinvestment cycles end when structure prices plus rehabilitation (undoing the effects of deferred maintenance) begin to approximate site costs plus replacement costs (i.e. demolish the deteriorated structure and build a new one).

There are two reasons why bargain hunting cannot be relied on to attenuate structural decline in areas that are not already densely settled.

First, in rural area fewer people are aware of what is occurring. Many people see urban areas decline because urban areas offer diverse employment and recreational opportunities (zoos, sporting events, entertainment). Mobility thru the area sparks interest in renewed investment.

Second, the declining neighborhoods in an urban area are sustained by a level of public services supported by a tax base from other neighborhoods.

Towns beyond the urbanized area are different. Fewer people live there and fewer people visit. They are more limited in their employment options and their recreational attractions. There is no larger unit to buffer their decline.

The relative isolation of towns and small cities may well allow them to decline in obscurity. Those who can move away, move away. Vacancies increase. Vacant homes deteriorate faster than occupied homes. The tax base and services fall and the general desirability of such areas drop. Disinvestment continues and the quality of the housing stock declines. In less urbanized areas there is no readily available larger unit to slow the decline. The decline of small cities and towns—if the past provides guidance—will be marked by household income reductions, deterioration of structures and deteriorating public services.⁸

This disinvestment process has been observed in urban areas during the decline and depopulation of Rust Belt cities. It is a process that started with the loss of an employment base albeit manufacturing rather than land-based activities like agriculture. It has proved difficult to reverse in an urban setting. It may be harder to reverse at outlying sites. In urban areas, density and public transit provide a basic level of mobility; remote areas have fewer employment alternatives and access requires private transit.

The DEIR fails to analyze these urban decay impacts. The DEIR must be revised to analyze these impacts and if necessary, develop appropriate mitigation measures as required by CEQA.

B. The DEIR Fails to Adequately Analyze and Mitigate for Risks of Widespread Abandonment

The DEIR acknowledges that the Beacon Photovoltaic Project in conjunction with the other solar projects in the area presents risks for abandonment of such facilities as a result of a number of factors including “the development of newer technology, change in state or national policy that encourages the construction of such facilities, or other economical factors.” (DEIR, p. 4.9-16). According to Mr. Kavanaugh, “[f]ailed or obsolete PV facilities have no alternative use. If abandoned they would deteriorate, perhaps creating a hazard to human health and the environment.”

⁸ Allowing the decline of the tax base to lead to deterioration in the quality of public services may create social outcomes that are costly to address.

To mitigate these risks, the DEIR proposes a decommissioning plan. (DEIR, p. 4.9-16 4.9-17). Mr. Kavanaugh highlights three issues with the decommissioning plan as proposed.

"First, the existence of a decommissioning plan does not imply that Beacon's impacts will be temporary. Beacon is intended to be a permanent feature of the high desert landscape, ecology and economy." The DEIR states that "[a]t the end of the lifespan of the proposed project, the panels and all above ground equipment would be removed, restoring the visual character of the proposed project site to its pre-construction state, which would also restore potential foraging habitat for golden eagle and other raptors." (DEIR, p. 1-15). According to Mr. Kavanaugh, "This statement is not indicating that Beacon will only last for a few years or is temporary. It is envisioned to be permanent. The loss of land for other uses (e.g., habitat, agriculture) will be permanent. This statement is supported by the language in the DEIR, which states:

The project proponent expects to sell the renewable energy produced by the product under the terms of a long-term Power Purchase Agreement (PPA). It is anticipated that the life of the PPA is between 20 to 25 years, while the life of the solar facility is at least 35 years. Following the expiration of a PPA for the project, the project proponent may, at its discretion, choose to enter into a subsequent PPA, update technology and re-commission, or decommission and remove the system and its components. The solar site could then be converted to other uses in accordance with applicable land use regulations in effect at that time. (emphasis added) (DEIR, p. 3-22).

"Second, the decommissioning plan applies only to Beacon; it does not apply to the other facilities that may also fail." As previously mentioned, the DEIR acknowledges that there are widespread risks of abandonment because of various factors including technology, energy policy, or economics. (DEIR, p. 4.9-16 - 4.9-17). According to Mr. Kavanaugh,

Moreover, these common causes could influence all or most PV projects in the region. Yet, the decommissioning plan called for in this mitigation measure applies only to the Beacon facility.⁹

⁹ Of course the Beacon facility might fail for reasons particular to it such as: inefficiency, poor management, unable to secure a favorable future contract, unreliability and the

How the County addresses *widespread* abandonment of PV facilities is a serious question but it may be a question outside of the scope of this DEIR. Formally, widespread abandonment will either be addressed: case-by-case by requiring decommissioning plans for each PV facility;¹⁰ broadly by developing a comprehensive response (e.g., levy a tax on all PV facilities to build a trust fund to decommission the facilities); or by ignoring widespread abandonment.

“Third, this decommissioning plan is only as effective as the financial assurances that support it.” Mitigation Measure 4.9-1 provides that prior to the issuance of a building permit, “the project operator shall provide the Kern County Planning and Community Development Department with a Decommission Plan for review and approval.” (DEIR, p. 4.9-17). Mr. Kavanaugh summarizes the required elements of the Decommissioning Plan as “*inter alia*, are that it be written; be kept up to date; contain a cost estimate for carrying out the tasks involved in removing the facility; and, be financially assured.”

According to Mr. Kavanaugh,

[t]he characteristics of the financial assurance instrument the permittee must provide are important because an inadequate (perhaps worthless) financial assurance may mean inadequate (or not mitigation).

An adequate financial assurance should:

- Attach to all transfers of site ownership;
- Make all responsible parties jointly liable;
- Be assured by an entity at arms length from the site owner;
- Be able to withstand any responsible party's bankruptcy;
- Be clear about what signals the start of restoration, (e.g., a date certain; output falls below a threshold);

like. If it fails for a particular rather than a common cause the decommissioning plan could be used if there are financial resources available to implement it.

¹⁰ Other solar projects in Kern County have mitigation measures that call for a financially assured mitigation plans. See for example Antelope Valley Solar (April 2011). Unfortunately, they have the same defects (discussed below) as the plan offered in Beacon.

- Be payable to an entity capable of managing the restoration; and,
- Provide in cash the purchasing power needed to restore the site.

Mitigation Measure 4.9-1 contains a "trigger" that states:

Should any portion of the solar field not be in operational condition for a consecutive period of twenty four (24) months that portion of the site shall be deemed abandoned and shall be removed within sixty (60) days from the date a written notice is sent to the property owner and solar field owner, as well as the project operator, by the County. Within this sixty (60) day period, the property owner, solar field owner, or project operator may provide the County a written request and justification for an extension for an additional twelve (12) months. The Kern County Planning and Community Development Director shall consider any such request at a Director's Hearing as provided for in Section 19.102.070 of the Kern County Zoning Ordinance. In no case shall a solar field, which has been deemed abandoned, be permitted to remain in place for more than forty-eight (48) months from the date the solar facility was first deemed abandoned. (DEIR, p. 4.9-18).

Mr. Kavanaugh provides three comments on this mitigation measure trigger. "First, the County appears to have no power to require compliance with the mitigation measure once the building permit(s) are issued. This must be corrected." Instead, the mitigation measure relies and "assumes a high level of good faith cooperation among the County and Beacon's owners. Even if this trust exists today, there is no reason to believe that the same level of trust will exist tomorrow or that today's owner of the facility will be tomorrow's owner." This is especially true in light of the fact that solar energy is still in its infancy. Mr. Kavanaugh states:

There is little experience with utility scale PV facilities so their useful life is a matter of conjecture. Utility scale PV facilities are likely to have an economic life that depends on many variables including but not limited to: the wholesale price of electricity; the relative efficiency of other solar installations; and, the relative efficiency of providing the

services of electricity that can be self-produced by the residential and commercial sectors.¹¹

The data show that thirty years is a long time in the economic life of a firm. The U.S. Department of Commerce, Center for Economic Studies tracks, *inter alia*, the life of U.S. firms.¹² For 2010, the latest year for which data has been published, the US economy consisted of five million firms with employees. These data show that there is a 17% chance that a firm will survive to the twenty-sixth year.^{13,14}

So, even if useful life is shorter than some expect and does not exceed thirty years, thirty years is beyond the lifetime of most U.S. firms.¹⁵ The data on firm life indicate that it is highly likely that even if the PV facility is short-lived, the County will not know the entity with whom they will be dealing even a few years from now. Accordingly, the mitigation measure must require ongoing compliance with the mitigation measure by all current and future owners.

Perhaps there are permits issued by the county -- in addition to building permits -- than can be conditioned. What the County or citizens need is the authority:

- To shut down the facility if the County does not have an approved, financially assured plan; and,

¹¹ Residential scale hot water heating competes with utility provided electricity, residential scale pv production competes with utility provided electricity, commercial entities are place panels on the roof to provide electricity for lighting and temperature control. This competes with utility provided electricity.

¹² See the Business Dynamics Statistics (BDS) produced by the Center for Economic Studies of the U.S. Census Bureau maintains the database of establishments with paid employees.

¹³ See also the Prologue to Arie de Graus's, *The Living Company*. He reports that the life expectancy at birth of all companies is 12.5 years; multinational corporations last only 40 to 50 years; and, one third of 1970 Fortune 500 companies disappeared by 1983 (a rate consistent with a 40 year life for a Fortune 500 company).

¹⁴ A company may cease to exist for many reasons including liquidation, acquisition, and multiple types of bankruptcy. All cessations of business jeopardize the continuation and completion of a pledge of decommissioning and removal unless there is an adequate and independent assurance instrument. The data show cessation is a common occurrence and that it is highly likely after twenty-five years.

¹⁵ Title to some or all of the parcels that make up the site Beacon has proposed may, in the future, be sold to another firm.

- To confiscate all revenues earned during the time the facility operated without a financially assured decommissioning plan.

Absent this authority, mitigation measure (MM 4.9-1) appears to be inadequate to mitigate the impact that it claims to address.

“Second, the financial assurance instrument must be able to withstand bankruptcy and attach to all future owners of the site. I do not see how the requirement to maintain a decommissioning plan is transferred from owner to owner.” Mr. Kavanaugh further states

Not all financial instruments are capable of providing adequate financial assurances.

A trust fund that builds over time, for example, is by itself an inadequate assurance. An accumulating trust fund would be unable to pay for the restoration if the solar facility fails or becomes obsolete earlier than expected. So, if an accumulating trust fund is used to financially assure the restoration then it must be complemented with another instrument, such as a letter of credit, until the trust builds to an amount that can provide the purchasing power to implement the restoration plan. Finally, to withstand bankruptcy, the trust must be irrevocable. That is, the funds in the trust are never returned to Beacon’s owners.

A fully funded, irrevocable trust can provide the necessary funds and can survive bankruptcy.

A surety bond may be impractical. These instruments are more commonly used for a shorter term than envisioned in this instance; have not proved to be effective to assure coal mine reclamations; and place a burden on the receiver of the funds (the County) to show whether the site is ready to be restored or should be restored. In a bankruptcy petition the funds for decommissioning may be withheld at the request of creditors.

A stand-by, evergreen letter of credit is a better instrument to use to assure restoration. These instruments are in use to assure the remediation of Resource Conservation and

Recovery Act sites.¹⁶ The amount of the letter is tied to the restoration cost estimate. Typically, a letter lasts for a year. When renewed its amount may change depending on increases or decreases in the restoration cost estimate.¹⁷ The permittee may be given the option to supplement the letter of credit by establishing an arm's length trust fund.¹⁸ In this event the amount of the letter plus the amount of the trust must meet the engineering cost estimate for restoration.

Most importantly, a letter of credit is not the property of the owner of the PV facility and in the event of a bankruptcy is not counted as part of the property of the failing company. The County will be able to collect the funds and will be in a much stronger bargaining position about the use of the funds.

No other financial instrument is appropriate. Pledges will not withstand bankruptcy. Pledges make the County dependent upon the good will of a troubled company. Generally, instruments or statements that are not guaranteed by a third party (e.g., self insured) or not at arms length from the current operator (e.g., parent corporation) will not withstand bankruptcy.

Finally, while requiring the receiver of a building permit to submit a financially assured decommissioning plan is important, it is insufficient.

The costs of the decommissioning plan and its assurance must attach to the site so that any and all future owners of the site have this obligation.¹⁹

"Third, the mismatch between the time the trigger allows for appealing a compulsory decommissioning and the length of time a financial assurance instrument is in force reduces if not completely

¹⁶ Responsible parties in RCRA cases that fail to provide financial assurances are in contempt of a court and are subject to additional fines and loss of liberty.

¹⁷ The mitigation measure might be rewritten so that PV owners who do not renew the letter of credit would face the same penalty as owners who fail to pay property taxes.

¹⁸ This is analogous to the post-closure liability trust fund required of operators or owners of solid waste disposal facilities.

¹⁹ Deed restrictions or covenants, for example, might be a way.

eliminates the value of this mitigation measure. This is because the mismatch may result in the County not receiving any funds.” Mr. Kavanaugh states that the financial assurance instrument is made worthless by the proposed trigger. In pertinent part,

The trigger outlines a process where if the facility or a portion of the facility is out of use it can be decommissioned. Yet the process it outlines may last four years. The financial assurance instruments – save for a fully-funded trust fund – are renewable, one-year instruments or in the case of an accumulating trust an instrument that requires annual payments. If a portion of the project is not being used, the issuer of the financial assurance instrument -- if it does any due diligence -- will realize that the assurance instrument will be used. If so it may simply decline to renew and no other issuer will be willing to assure the funds. In that event the County will not be receiving any financial assurance and decommissioning may not occur. This makes the mitigation measure ineffective.

I do not see a way of using this trigger with a letter of credit or surety bond. If the trigger stays as written; then, the decommissioning plan must be assured with fully-funded trust that is at arms-length from the owner and is kept up to date during the appeal.

As discussed, there are risks of widespread abandonment. These risks must be properly analyzed, and if necessary mitigated. The proposed mitigation measure, the decommissioning plan, is inadequate. The DEIR must be revised to address these deficiencies.

C. The DEIR Fails to Adequately Analyze Impacts to Biological Resources

It is the policy of the State of California to

Prevent the elimination of fish or wildlife species due to man’s activities, insure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities.

(Pub. Res. Code § 21001(c)). An EIR may not avoid studying impacts to biological resources by proposing future study or mitigation based on

future studies unless the mitigation measures and performance standards are explicit in the DEIR. (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 671).

As discussed below, the DEIR fails to assess impacts to wildlife, especially sensitive species, and native plants. Where impacts are identified, the DEIR impermissibly relies on vague, unenforceable and deferred mitigation measures, most of which lack a foundation in science and performance standards. Consequently, the DEIR must be revised to reassess impacts to biological resources and, where appropriate, propose adequate mitigation measures with definite terms and verifiable performance standards.

1. The DEIR Fails to Adequately Assess Impacts to Golden Eagles

The DEIR states “[t]hese species [prey species of golden eagle] are likely more abundant in less disturbed adjacent habitat and west of SR 14 along the proposed transmission line, but their presence is also expected in lower numbers throughout areas of the project site that support even sparse vegetation.” (DEIR, p. 4.3-17). This conclusion is unfounded and the product of hopeful speculation. Unless qualified biologists performed surveys or live-trapping for lagomorphs and rodents on and off the project site, this conclusion lacks scientific foundation. There is no reason to believe that there could not be more golden eagle prey items on the project site compared to offsite. Another factor to consider is prey vulnerability to eagles, which could be higher on disturbed lands. In some situations, golden eagle foraging success could be even higher where there are few prey items simply because the prey items that are available are also more exposed to predation.

The DEIR also concludes that “[b]ased on the nearest active nest locations, the project site lies outside the known maximum potential home range of known breeding pairs of golden eagles, which can measure up to 36 square miles in Southern California (CDFG, 2005).” (DEIR, p. 4.3-17). This conclusion implies that animal home ranges can be delineated by simple circles. The majority of home ranges, however, can be delineated by complex polygons that look very different from a circle. The only way to know whether the eagles nesting 6.5 miles away actually forage over the proposed project site is to track the eagles’ flights.

In addition, the DEIR concludes “If this [active eagle] nest were to become active again, the project area would be within potential foraging range for nesting eagles. Otherwise, it is unlikely that the species would

forage over the project site on anything more than a transient basis.” (DEIR, p. 4.3-17). Most animal populations are spatially dynamic, meaning activity areas shift every generation or so (Taylor and Taylor 1979). In the case of golden eagles, it is well known that vacant nests are often used again in the future, and this pattern is consistent with the general findings of Taylor and Taylor (1979). Animal populations must shift their activity areas occasionally to escape parasite loads or to allow prey populations to recover, and there are two additional hypotheses for why activity areas shift, as well. Not only should the project site be considered as likely golden eagle foraging and nesting habitat, but the notion of transient use should be rejected (Smallwood 2001, 2002). Even if a biologist could successfully define an activity level as “transient,” that biologist would not be able to convince fellow biologists that this transient use of a site is of no value to the eagles. The DEIR should be revised to assess impacts to Golden Eagles.

2. The DEIR Fails to Analyze Impacts to Wildlife Movement Corridors

The DEIR concludes “[t]he project site has not been identified as lying within a major terrestrial wildlife movement corridor (California Wilderness Coalition, 2001-2008).” (DEIR, p. 4.3-52). This conclusion was unfounded, because the California Wilderness Coalition is not an acceptable source on the distribution of wildlife movement corridors. In fact, the Coalition’s web site contains no maps or reports on wildlife movement corridors. Wildlife movement corridors need to be identified using scientific methods (Beier and Loe 1992).

The DEIR also concludes “[a]lthough dry washes often comprise movement corridors, the project site has been fenced for some time and much of the fencing remains to provide a deterrent for potential wildlife movement through the site.” (DEIR, p. 4.3-52). However, the EIR provided no evidence that the fences have effectively blocked wildlife movement along the dry washes on the site. No surveys were performed to determine whether wildlife have been using the dry washes as movement corridors.” The DEIR should be revised to analyze impacts to wildlife movement corridors.

3. The DEIR Improperly Defers Mitigation for Permanent Impacts to Western Burrowing Owls

The DEIR promises “[c]ompensatory mitigation acreage for permanent impacts to western burrowing owl nesting, occupied, and satellite burrows and/or western burrowing owl habitat shall be determined

and acquired as required by the wildlife or resource agency.” (DEIR, p. 4.3-17, MM 4.3-17(a)). This mitigation measure improperly defers mitigation. In pertinent part, this measure defers the formulation of the most important details of the mitigation to an unspecified, later date, thereby excluding me and other members of the public from participating in a meaningful way. Suitable land parcels should be identified and presented to the public prior to certification of the EIR. The DEIR should be revised to provide an adequate mitigation measure.

4. The DEIR Improperly Defers Mitigation for Impacts to Desert Tortoise, Western Burrowing Owl, and Mohave Ground Squirrel

The DEIR promises “[a] Habitat Mitigation and Monitoring Plan shall be prepared that outlines all project compensatory mitigation for desert tortoise, western burrowing owl and Mohave ground squirrel, in coordination with California Department of Fish and Game, and the Regional Water Quality Control Board.” (DEIR, p. 4.3-17, MM 4.3-17(b)). This mitigation measure also improperly defers the formulation of the most important details of the mitigation to an unspecified, later date, thereby excluding the members of the public from participating in a meaningful way. The DEIR should be revised to provide an propose a adequate habitat mitigation and monitoring plan so that the public, prior to certification of the EIR.

5. The DEIR Fails to Adequately Mitigate for Cumulative Impacts to Biological Resources

Compensatory mitigation is required to mitigate for cumulative impacts to biological resources. The Beacon Solar project would contribute incrementally to cumulative impacts in the region. Other planned and in-construction solar projects within 30 miles of the Beacon Photovoltaic Project total 20,300 acres. About 200 MW of wind energy has been constructed or will soon be constructed northwest of the Beacon Photovoltaic Project, and large wind projects have been constructed southwest of the project. The Pine Tree wind energy project began killing golden eagles soon after operations began, and had already reached 8 golden eagle fatalities by spring 2012. Given the multiple special-status species that will be adversely affected by the Beacon Photovoltaic Project, and given the significance of the Project’s cumulative impacts, compensatory mitigation should be directed toward cumulative impacts. Land area equal to the project area should be purchased as a conservation easement or in fee title and set aside and managed in perpetuity as habitat for the special-status species at issue. The mitigation

land should include appropriate desert plant communities, and it should be identified prior to the certification of the EIR.

Providing compensatory mitigation to offset cumulative impacts would also be consistent with Policy 9 of Kern County's General Plan. Policy 9 holds that the County should develop and implement measures which result in long-term compensation for wildlife habitat, which is unavoidably damaged by energy exploration and development activities. Mitigating for project-specific impacts will not be sufficient for meeting this General Plan Policy. The DEIR should be revised to provide an adequate mitigation measure to address cumulative impacts to biological resources.

6. The DEIR Failed to Provide for Monitoring of Avian Collision Fatalities

Monitoring of avian collision fatalities should be required because little is known about the rate of avian collisions with solar panels installed in a commercial setting. Post-construction fatality monitoring program is warranted. Qualified biologists should be funded to search the ground between solar panel arrays on a monthly basis for at least one year to determine whether collision fatalities are an issue. Searches should be done on foot. Searching should be conducted randomly or systematically thereby selecting arrays of solar panels to the extent that equals 20 person-days per month. If collision fatalities are deemed to be an issue, then the fatality monitoring should be extended for another two years and additional searcher detection trials to facilitate the accurate estimation of fatality rates. Furthermore, an analysis should be performed on the pattern of fatalities to identify spatial or other trends that can inform mitigation measures to reduce fatality rates. Basic methods for fatality monitoring at a solar energy plant can be found in McCrary et al. (1986), and updated methodology can be found in Smallwood (2007, 2009) and Smallwood and Karas (2009).

The ground under the transmission lines should also be searched monthly for at least one year to determine whether collisions will be an issue at the Project site. If collisions are deemed to be an issue, then the surveys should be extended for another two years, adding searcher detection trials, and implementing mitigation measures such as installing flight diverters.

The DEIR should be revised to include monitoring of avian collision fatalities.

D. The DEIR Fails to Adequately Analyze Impacts to Air Quality

1. Particulate Matter

Mr. Hagemann concludes that the DEIR fails to adequately analyze air quality impacts of the Project. The Project is located in the Eastern Kern County Air Pollution Control District ("EKAPCD") and the Mojave Desert Air Basin ("MDAB"). These air basins are both designated non-attainment for particulate matter ("PM10"). The open lands of the Project site are also a "large source of windblown dust." (Beacon Solar Energy Project (08-AFC-2) Fact Sheet, p. 5). According to Mr. Hagemann,

Significant emissions of PM10 from Project construction, in conjunction with the area's natural windblown dust, may result in a further degradation of regional air quality.

The Project's PM10 emissions from construction activities, prior to any mitigation, are estimated to be 18.91 tons per year (tpy) and are identified to be significant because they exceed the EKAPCD threshold of 15tpy (DEIR, p. 4.2-33). The DEIR identifies mitigation measures recommended by the EKAPCD (DEIR, pp. 4.2-29 – 4.2-32). After mitigation, PM10 emissions are estimated to be 6.47 tpy (a reduction of 66%) and are considered less than significant as they fall below the EKAPCD threshold (DEIR, p. 4.2-33). The DEIR and its supporting documents fail to provide any documentation to substantiate the 66% reduction in its estimate of PM10 emissions.

A revised DEIR must be prepared to show the efficiency of the Project's proposed mitigation measures. If these measures do not account for a 66% reduction in the Project's estimated PM10 levels, additional mitigation measures (listed below) that routinely considered in other CEQA projects should be implemented:

- All equipment shall be turned off when not in use. Engine idling of all equipment shall be minimized;
- Use of emission control devices on diesel equipment;
- Pave dirt roads within the development;
- All hauling materials should be moist while being loaded into dump trucks. All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or

- other enclosures that would reduce fugitive dust emissions); and
- A wheel-washing system shall be installed and used to remove bulk material from tires and vehicle undercarriages before vehicles exit the proposed project property.²⁰

Research identifies that dust from construction is a major contributor to PM10 and that PM10 exposure is associated with asthma.²¹ Inhalation of PM10 can exacerbate asthma especially in children who are susceptible to higher risks from PM10 exposure.²² A "Federal Particulate Matter (PM10) Attainment Plan" by the Mojave Desert Air Quality Management District states that asthma is one adverse health effect from exposure to PM10 and children are especially high-risk.²³

The Project's construction activities such as "excavation, filling, grading, and vehicle travel" will result in PM10 emissions (DEIR, p. 4.2-26). PM10 emissions from Project construction in conjunction with the site's existing windblown dust (Fact Sheet, p. 5) can result in significant impacts to workers and offsite receptors, including residences located within a half-mile of the Project site (Table 4.2-2). If the Project's estimates of PM10 are significant, mitigation measures must be included in the revised DEIR.

2. NOx

According to Mr. Hageman,

NOx can react in the atmosphere to form PM10. Because the Project is located in areas that are designated non-attainment for PM10, significant emissions of NOx can lead to a worsening of regional air quality.

²⁰ http://www.co.kern.ca.us/planning/pdfs/eirs/northsky_jawbone/DEIR/Subsections/4.3-4.pdf

²¹ http://scerfiles.org/cont_mgt/doc_files/EH-01-2.pdf and

²² <http://www.co.imperial.ca.us/airpollution/attainment%20plans/final%20ic%202009%20pm10%20sip%20document.pdf><http://www.co.imperial.ca.us/airpollution/attainment%20plans/final%20ic%202009%20pm10%20sip%20document.pdf>

²³ <http://www.mdaqmd.ca.gov/Modules/ShowDocument.aspx?documentid=42>

The Project's NOx emissions from construction activities are estimated to be 10.59 tons per year (tpy) and are not significant as they do not exceed the Eastern Kern Air Pollution Control District ("EKAPCD") thresholds (DEIR, p. 4.2-33).

The DEIR includes a table to show construction emissions of NOx from solar projects in the Desert Region of the Mojave Desert Air Basin ("MDAB"). We have reviewed estimates of NOx emissions from construction activities and have tabulated them.

We have tabulated emissions, including some identified in the DEIR, from some estimates included in the DEIR and from estimates we found from other projects in the table below.

Name	County	Megawatts	Acreage	NOx Emissions (tons per year)
Beacon Solar	Kern	250	2300	10.59
Rosamond Solar ²⁴	Kern	155	1177	18
Catalina ²⁵	Kern	150	1100	64.51
Solar Gen 2 ²⁶	Imperial	200	2009	146.14
Cluster I Solar ²⁷	Imperial	275	1738	64.65
Campo Verde ²⁸	Imperial	140	1990	23.79

The table shows estimates of NOx construction emissions vary from the low of 10.59 tons per year – the estimate for the Project – to a high of more than 146 tons per year. No rationale is provided in the DEIR for why estimates of NOx emissions from Project construction are so low in comparison to comparably sized projects. For example, NOx estimates for a similar sized project (Solar Gen 2) are nearly 14 times greater than the Project's estimates of NOx. No documentation of how the NOx estimate was made is included in the DEIR or any of its supporting documents.

²⁴ http://www.co.kern.ca.us/planning/pdfs/eirs/recurrent_desert/Appendix_C-Air_Quality_and_GHG_Report.pdf

²⁵ http://www.edf-re.com/files/uploads/Catalina_Profile_8-2012.pdf

²⁶ <ftp://ftp.co.imperial.ca.us/icpds/eir/solar-gen-2-solar-array/07air-quality.pdf>

²⁷ <ftp://ftp.co.imperial.ca.us/icpds/eir/cluster-i-solar/08ch3-air-quality.pdf>

²⁸ <ftp://ftp.co.imperial.ca.us/icpds/eir/campo-verde-solar/05project-description.pdf>

A revised DEIR must be prepared to provide modeling calculations of Project NOx emissions, to include the methodology, model inputs, and any assumptions that were used. Gaseous particles such as NOx can react in the atmosphere to form PM10.^{29,30} Because the EKAPCD and the MDAB are both designated non-attainment for PM10, significant emissions of NOx can lead to a further degradation of regional air quality. NOx emissions can also react to produce ground-level ozone.³¹ Exposure to NOx emissions and its products (ozone and PM10) can lead to the airway inflammation and can cause or exacerbate conditions such as emphysema and bronchitis.³²

If the revised results exceed the Kern County threshold of 25 tons per year, appropriate mitigation measures must be identified in the DEIR, to include:

- A plan to demonstrate that heavy-duty (50 horsepower or more) off-road vehicles to be used in the construction project will achieve a project wide fleet-average 20% NOX reduction and 45% particulate reduction compared to the most recent California Air Resources Board fleet average;
- Limiting emissions from all off-road diesel powered equipment to a maximum of 40% opacity (the degree to which light is obscured) for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or 2 on the Ringelmann smoke chart) shall be repaired immediately; and
- Minimizing drop heights when loaders dump soil into trucks.

A DEIR must be prepared to include revised calculations of the Project's NOx emissions. Mitigation measures, if necessary, should be included to ensure the health of construction workers and offsite receptors (especially children at the nearby Red Rock Elementary School).

²⁹ [http://www.fhwa.dot.gov/resourcecenter/teams/airquality/brochure/particulatebrochure.p
df](http://www.fhwa.dot.gov/resourcecenter/teams/airquality/brochure/particulatebrochure.pdf)

³⁰ <http://www.epa.gov/captrade/documents/power.pdf>

³¹ *ibid.*

³² <http://www.epa.gov/air/nitrogenoxides/health.html>

E. The DEIR Fails to Adequately Analyze Impacts to Hydrology and Water Quality

1. The DEIR Fails to Adequately Analyze the Potential Releases of Cadmium

The DEIR states that PV panels containing cadmium telluride (CdTe) are being considered as a possible technology for the Project. (DEIR, p. 3-4). However, the DEIR dismisses any impacts these CdTe panels may have and instead states "it has been demonstrated that there are no cadmium emissions to air, water, or soil during standard operation of CdTe PV systems. CdTe releases are unlikely to occur during accidental breakage." (DEIR, p. 4.7-4). According to Mr. Hagemann,

[t]his is in contrast with recent research that shows that cadmium from broken panels can leach into the environment. A 2011 study found that cadmium, from broken panels, can leach into groundwater at concentrations that exceed Environmental Screening Levels³³, which have been established for "protection against leaching and subsequent impacts to groundwater".³⁴ The DEIR does not consider the possibility of panel breakage and subsequent CdTe releases due to flooding. Broken panels can expose the CdTe that is locked inside which can wash into adjacent waterways. The Project drains to the Koehn Dry Lake (DEIR, p. 4.8-1) located five miles east. Panels that break during flooding may release CdTe, at concentrations exceeding ESLs, which will be carried in the water to the Koehn Dry Lake.

Panels may break during flooding as seen in the recent flooding that occurred at the Genesis Solar Energy Project site, which is currently under construction in Riverside County. The flood, which occurred on July 30 and July 31, 2012, resulted from 6 inches of rain over the 2-day period³⁵, corresponding to a 500-year storm event.³⁶ The rainfall, which was paired with high winds, damaged

³³ Fate and Transport Evaluations of Potential Leaching Risks from Cadmium Telluride Photovoltaics (2012). Environmental Toxicology and Chemistry, Vol. 31, No. 7

³⁴ Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater.
http://www.swrcb.ca.gov/sanfranciscobay/water_issues/available_documents/ESL_May_2008.pdf

³⁵ <http://www.earthtechling.com/2012/08/big-desert-solar-project-hit-by-wind-flood/>

³⁶ http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ca

almost 200 parabolic trough mirrors resulting in damages of \$3 million.

Panels may also break in the event of surface rupture along the Garlock fault, located on the Project site (DEIR, p. 4.5-6). The Garlock fault is mapped as an Alquist-Priolo (A-P) Fault Zones on the basis of fault rupture has been documented in the last 11,000 years and where future rupture is considered likely. Rupture of the Garlock fault may result in panel breakage and release of CdTe to the environment. If coupled with a rainfall event, significant amounts of cadmium may flow to waterways, which flow to Koehn Dry Lake, creating potential ecological risks for aquatic organisms.

PV panels containing CdTe, if used for the project, would likely break under similar flooding conditions. Potentially significant releases of CdTe into waterways could result, leading to toxic concentrations of cadmium in the Kohn Dry Lake and other waterways. If the Applicant decides to use CdTe panels for the Project, impacts from panel breakage that may occur due to flooding and any subsequent releases of CdTe must be disclosed, evaluated, and mitigated.

The DEIR must be revised to analyze impacts related to CdTe.

2. The DEIR Fails to Address Potential Violations of Water Quality Standards and Waste Discharge Requirements

According to Mr. Hagemann,

Treatment of groundwater that will be pumped to provide 15 acre-feet of water per year for PV panel washing is not discussed. Treatment of water used for PV panel washing is often necessary at other solar projects to reduce mineral content.³⁷ At other solar project sites, the treatment requires discharge of wastewater to evaporation ponds which are subject to a Report of Waste Discharge and issuance of a Waste Discharge Requirement permit by the Regional Water Quality Control Board (RWQCB); in fact, a Draft Report of Waste Discharge was submitted in 2009 to the RWQCB for a previous incarnation of the Beacon Solar Project for wastewater discharge.³⁸ Evaluation of permit requirements is

³⁷ McCoy Solar Energy Project. Draft Plan Amendment and Environmental Impact Statement. Chapter 2 Proposed Action and Alternatives. May 2012. p. 2-19

³⁸ Attachment 6, Report of Waste Discharge, Beacon Solar Energy Project. June 2009.

necessary to ensure full compliance with the requirements of the Porter-Cologne Water Quality Control Act and the California Water Code.

The DEIR and supporting documents provide no discussion of the need to treat water used for PV panel washing and the need to evaporation ponds to treat wastewater. A revised DEIR should be prepared to identify needs for water treatment to include a Draft Report of Waste Discharge to identify potential impacts to water resources from wastewater discharge.

A Report of Waste Discharge may also be needed for any fill placement with jurisdictional Waters of the State. The DEIR states that Pine Tree Wash will be avoided during road construction except for three crossings, concluding the "impact will be minimal from these crossings and will comply with all pertinent regulations" (DEIR, p. 4.8-12). However, the DEIR does not include an analysis of the specific need for a Report of Waste Discharge and Waste Discharge Requirements for the placement of the crossings.

The DEIR states that panels or structures within high-flow areas as determined in the hydrology study for the 100-year event will be avoided (p. 4.8-12) but does not identify where other panels will necessarily be placed within channels of jurisdictional Waters of the State, thus triggering the need for a Report of Waste Discharge and Waste Discharge Requirements. The placement of fill across ephemeral drainages considered Waters of the State has led to the preparation of Reports of Waste Discharge for other solar projects. For example, in San Luis Obispo County, the Central Coast RWQCB required a ROWD and issued Waste Discharge Requirements in 2012 for the California Valley Solar Ranch project.³⁹ The Waste Discharge Requirements for the California Valley Solar Ranch project were based on the finding that construction would impact only 0.02 acres of ephemeral drainages.

Pursuant to Section 13260(a) of the California Water Code, a revised DEIR should be prepared to include a ROWD that would identify the project's impacts to jurisdictional waters from

³⁹ California Regional Water Quality Control Board Central Coast Region. Individual Waste Discharge Requirements Order No. R3-2012-0006 for California Valley Solar Ranch Discharges of Fill Material for Waters of the State, San Louis Obispo County, California. February 2012.

construction of roads or placement of PV panel supports in waterways.

F. The DEIR Fails to Establish a Baseline and Fails to Adequately Assess Impacts to Worker Health Related

The DEIR fails to establish a baseline for soil conditions at the Project Site. The DEIR states that "[t]he project site and the surrounding areas are primarily undeveloped disturbed lands, formerly used for agricultural activities." (DEIR, p. 4.7-4). The DEIR suggests that pesticide usage on the site was likely due to its land use history but does not provide any details of the Project's land use history. Instead, the DEIR simply states "[t]he type, concentration, and frequency of this use is unknown" and "pesticides, herbicides, and associated metals may be present in near-surface soils at residual concentrations." (DEIR, p. 4.7-4).

Mr. Hagemann states that

The failure to provide any detail about pesticide use and the potential for pesticide residuals stems from the failure to prepare a Phase I Environmental Site Assessment (ESA) to be included with the DEIR. Phase I ESAs are routinely prepared to document site conditions and to identify any recognized environmental conditions.⁴⁰

A Phase I ESA must be prepared for the Project site to evaluate past pesticide use and any potential for pesticide residuals in soil. The Project proposes to install approximately one million PV panels and associated infrastructure. Construction of these Project components will require significant earthwork including excavation, grading, filling, soil compacting, and trenching. These activities have the potential to expose construction workers to pesticides that may be present in Project site soils through dermal contact and dust inhalation. Dust containing residual concentrations of pesticides may also be transported by wind and affect offsite receptors (in particular, nearby residents).

⁴⁰ A REC is defined as the presence or likely presence of any hazardous substance or petroleum products on a property under conditions that indicate existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. See: <http://www.astm.org/Standards/E1527.htm>

The Center on Race, Poverty, and the Environment states that "exposure to pesticides can both cause asthma and aggravate it".⁴¹ The "Strategic Plan for Asthma in California 2008-2012" prepared by the California Department of Health identifies pesticides as a specific asthma trigger.⁴²

Construction of the Project will generate dust that may contain pesticides that are harmful to human health. Because exposure to pesticides has been established as an asthma trigger, there is the potential that Project construction may result in a significant impact to workers and offsite receptors, especially children who may live in nearby houses.

The potential for pesticides and their impacts cannot be adequately assessed without a Phase I ESA. A revised DEIR should be prepared to include a Phase I ESA to document recent and past agricultural activities on the Project site, use and types of any pesticides in those activities, and the identification of any pesticide mixing or loading areas. If pesticide use is confirmed in the Phase I ESA and identified as a REC,⁴³ soil sampling under a Phase II ESA must be conducted. Results should be compared to screening levels (such as environmental screening levels, regional screening levels, and human health screening levels)⁴⁴ and mitigation must be provided, if necessary.

⁴¹ Center on Race, Poverty, and the Environment. The Pesticide Campaign.
<http://www.crpe-ej.org/crpe/index.php/campaigns/pesticides>

⁴² California Department of Public Health. Strategic Plan for Asthma in California 2008-2012. February 2008.
<http://www.cdph.ca.gov/programs/caphi/Documents/AsthmaStrategicPlan.5-5-08.pdf>, p. 22

⁴³ A REC is defined as the presence or likely presence of any hazardous substance or petroleum products on a property under conditions that indicate existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

⁴⁴ ⁴⁴ California Human Health Screening Levels:
<http://www.calepa.ca.gov/brownfields/documents/2005/CHHSLsGuide.pdf>;
Environmental Screening Levels:
http://www.waterboards.ca.gov/sanfranciscobay/water_issues/available_documents/ESL_May_2008.pdf; and Regional Screening Levels:
<http://www.epa.gov/region9/superfund/prg/>

VI. The DEIR Inadequately Analyzed Cumulative Impacts to Land

A. CEQA Requires analysis of cumulative impacts

An EIR must discuss significant cumulative impacts. CEQA Guidelines section 15130(a). This requirement flows from CEQA section 21083, which requires a finding that a project may have a significant effect on the environment if "the possible effects of a project are individually limited but cumulatively considerable. . . . 'Cumulatively considerable' means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." "Cumulative impacts" are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." (CEQA Guidelines section 15355(a)). "[I]ndividual effects may be changes resulting from a single project or a number of separate projects." (*Id.*) Incremental contributions must be assessed "when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probably foreseeable projects." (14 Cal. Code Regs. § 15065(a)(3)).

"The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." *Communities for a Better Environment v. Cal. Resources Agency* ("CBE v. CRA"), (2002) 103 Cal.App.4th 98, 117. A legally adequate cumulative impacts analysis views a particular project over time and in conjunction with other related past, present, and reasonably foreseeable probable future projects whose impacts might compound or interrelate with those of the project at hand. "Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." CEQA Guidelines § 15355(b).

As the court stated in *CBE v. CRA*, 103 Cal. App. 4th at 114:

Cumulative impact analysis is necessary because the full environmental impact of a proposed project cannot be gauged in a vacuum. One of the most important environmental lessons that has been learned is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant when considered individually, but assume threatening

dimensions when considered collectively with other sources
with which they interact.

(Citations omitted).

In *Kings County Farm Bureau v. City of Hanford*, 221 Cal.App.3d at 718, the court concluded that an EIR inadequately considered an air pollution (ozone) cumulative impact. The court said: "The [] EIR concludes the project's contributions to ozone levels in the area would be immeasurable and, therefore, insignificant because the [cogeneration] plant would emit relatively minor amounts of [ozone] precursors compared to the total volume of [ozone] precursors emitted in Kings County. The EIR's analysis uses the magnitude of the current ozone problem in the air basin in order to trivialize the project's impact." The court concluded: "The relevant question to be addressed in the EIR is not the relative amount of precursors emitted by the project when compared with preexisting emissions, but whether any additional amount of precursor emissions should be considered significant in light of the serious nature of the ozone problems in this air basin."⁴⁵ The *Kings County* case was recently reaffirmed in *CBE v. CRA*, 103 Cal.App.4th at 116, where the court rejected cases with a narrower construction of "cumulative impacts."

Similarly, in *Friends of Eel River v. Sonoma County Water Agency*, (2003) 108 Cal. App. 4th 859, the court held that the EIR for a project that would divert water from the Eel River had to consider the cumulative impacts of the project together with other past, present and reasonably foreseeable future projects that also divert water from the same river system. The court held that the EIR even had to disclose and analyze projects that were merely proposed, but not yet approved. The court stated, CEQA requires "the Agency to consider 'past, present, and probable future projects producing related or cumulative impacts . . .'" (Guidelines, § 15130, subd. (b)(1)(A)). The Agency must interpret this requirement in such a way as to 'afford the fullest possible protection of the environment.'" *Id.*, at 867, 869. The court held that the failure of the

⁴⁵ *Los Angeles Unified v. City of Los Angeles*, 58 Cal.App.4th at 1024-1026 found an EIR inadequate for concluding that a project's additional increase in noise level of another 2.8 to 3.3 dBA was insignificant given that the existing noise level of 72 dBA already exceeded the regulatory recommended maximum of 70 dBA. The court concluded that this "ratio theory" trivialized the project's noise impact by focusing on individual inputs rather than their collective significance. The relevant issue was not the relative amount of traffic noise resulting from the project when compared to existing traffic noise, but whether any additional amount of traffic noise should be considered significant given the nature of the existing traffic noise problem.

EIR to analyze the impacts of the project together with other proposed projects rendered the document invalid. "The absence of this analysis makes the EIR an inadequate informational document." *Id.*, at 872.

The court in *Citizens to Preserve the Ojai v. Bd. of Supervisors*, 176 Cal.App.3d 421 (1985), held that an EIR prepared to consider the expansion and modification of an oil refinery was inadequate because it failed to consider the cumulative air quality impacts of other oil refining and extraction activities combined with the project. The court held that the EIR's use of an Air District Air Emissions Inventory did not constitute an adequate cumulative impacts analysis. The court ordered the agency to prepare a new EIR analyzing the combined impacts of the proposed refinery expansion together with the other oil extraction projects.

B. The DEIR Inadequately Analyzed Cumulative Impacts to Land

The Beacon Photovoltaic Project is part of a county-wide movement to develop large-scale solar and wind projects. The Project will convert 2,301 acres of primarily agricultural land to a utility-scale solar energy production facility. The DEIR identified 24 projects to be considered for cumulative impacts analysis. (DEIR, p. 4.9-16). The 24 projects will impact 20,300 acres. (DEIR, p. 4.9-16). The DEIR stated that "[t]he anticipated project impacts in conjunction with cumulative development in the project area would increase urbanization and result in the loss of open space within the desert region of the County." (DEIR, p. 4.9-16). The DEIR should further evaluate the type of lands these 24 projects will impact. For example, what percentage of the 20,300 acres is designated as agricultural land or residential land? The DEIR impermissibly narrows the scope of projects considered for cumulative impacts to 24 solar projects. However, according to a Kern County Solar Projects document dated July 17, 2012, there are an additional 46 solar projects planned for the area (Kern County Solar Project, 7/17/12, available at http://www.co.kern.ca.us/planning/pdfs/renewable/solar_projects.pdf). These projects include:

- Chevron Energy Solutions Company by URS Corporation (18 acres, 2 MW)
- Meadows Field Solar Project (9 acres, 0.75 MW)
- GE Energy LLC by URS Corp (337 acres, 40 MW)
- LADWP (75 acres, 10 MW)
- Vaquero Energy (10 acres, 1 MW)
- Cenergy Power by McIntosh & Assoc. (2 acres, 0.5 MW)
- Renewable Technology Development (2 acres, 0.5 MW)

- Lost Hills Solar by NextLight (307 acres, 33 MW)
- Cenergy Power (160 acres, 1.5 MW)
- Maricopa Sun Solar Complex Project by Maricopa Sun LLC (6,046 acres, 700 MW)
- SKIC Development Inc (321 acres, 20 MW)
- Kern County General Services Dept - Lerdo Detention Facility (14 acres, 2 MW)
- RE Distributed Solar Projects (RE Rio Grande) (47 acres, 5 MW)
- Elk Hills Solar by enXco (47 acres, 7 MW)
- Goose Lake Solar by enXco (94 acres, 15 MW)
- Smyrna Solar by enXco (125 acres, 12 MW)
- Cenergy Power by McIntosh & Associates (29 acres, 3 MW)
- Catalina (Enxco) (1,223 acres, 150 MW)
- Old River One by RE Old River One LLC (105 acres, 16 MW)
- FRV Valley Solar Projects (3 sites: Regulus, Adobe and Rigel) (1,128 acres, 115 MW)
- Pioneer Green Energy Solar (3 sites: Wildwood, Pumpjack & Rio Bravo) (480 acres, 125 MW)
- FRV Mojave Solar Project by FRV Mojave Solar, LP (174 acres, 20 MW)
- Weldon Solar Project by Renewable Sources (300 acres, 60 MW)
- SunGen Solar by La Paloma (398 acres, 31 MW)
- High Desert Solar by Element Power (154 acres, 18 MW)
- Orion Solar by Fotowatio Renewable Ventures (265 acres, 20 MW)
- FS Weldon 1 Solar - Foresight Solar (538 acres, 20 MW)
- Wasco-Charca Solar by Solar Land Partners (72 acres, 8 MW)
- Kern Solar Ranch (6,100 acres, 1,000 MW)
- Avenida Del Sol Solar Project (37 acres, 5 MW)
- Chaparral Solar by Aurora Solar (Iberdrola) (172 acres, 30 MW)
- Gateway Solar Project by East Kern Properties (3,066 acres, 350 MW)
- Browning Rd Solar by Integrated Sources Development (28 acres, 4.5 MW)
- Twisselman Solar by Gestamp (103 acres, 17 MW)
- CA Solar LLC (37 acres, 3 MW)
- Axio Power w/ TRC Solutions - McFarland-Delano SLF (unknown)
- Axio Power w/ TRC Solutions - Buttonwillow SLF (unknown)
- Pond-Poso Solar by SolarGEN (35 acres, 5 MW)
- Paso Robles Solar by SolarGen (80 acres, 10 MW)
- Thermopylae Solar by WDG Capital Partners (94 acres, 20 MW)
- Borax Solar Project by Valos Solar Ventures, LCC (320 acres, 20 MW)
- Ignite solar (40 acres, 1.5 MW)
- Harris (40 acres, 1.5 MW)

- RE Distributed Solar Projects (RE Tehachapi Solar One) (160 acres, 20 MW)
- RE Distributed Solar Projects (RE Tehachapi Solar Two) (157 acres, 20 MW)

In addition, according to a Kern County Alternative Energy Projects (Wind Projects) document dated December 12, 2011, there are also 19 wind energy projects that have been recently completed or are planned for the area including (Kern County, available at http://www.co.kern.ca.us/planning/pdfs/renewable/wind_projects.pdf):

- PdV (Manzana) (5,820 acres, 300 MW)
- Alta (Terra-Gen) (9,175 acres, 800 MW)
- Windstar (Western Wind) (1,007 acres, 65 MW)
- Coram, Inc., ZCC, Map 198 (69.09 acres, 3 MW)
- Coram, Inc., ZCC #43, Map 197 (60.1 acres, 3 MW)
- PdV Addendum (Enxco) (2,423 acres, 0 MW)
- Alta Addendum I (Terra-Gen) (1 acre, 0 MW)
- Pacific Wind (Enxco) (8,300 acres, 151 MW)
- Windstar Addendum I (Western Wind) (1 acre, 0 MW)
- Alta Addendum II (Terra-Gen) (4,610 acres, 330 MW)
- Pacific Wind Addendum (Enxco) (1,325 acres, 0 MW)
- Jawbone Wind Energy Project (Phil Rudnick) (640 acres, 39 MW)
- North Sky River Wind Energy Project (NextEra) (12,781 acres, 300 MW)
- Morgan Hills (Terra-Gen) (3,604 acres, 230 MW)
- Alta Infill II (Terra-Gen) (5,185 acres, 530 MW)
- Catalina (Enxco) (7,440 acres, 200 MW)
- Avalon (Enxco) (10,000 acres, 255 MW)
- Alta East (Terra-Gen) (3,660 acres, 300 MW)
- Rising Tree (Horizon Wind) (4,019 acres, 350 MW)

The DEIR should consider these projects in its cumulative impact analysis and should provide information about the types of lands being impacted (e.g., are the lands designated for agriculture or residential use) in addition to impacts to increased urbanization and loss of open space. These projects will undoubtedly have significant cumulative impacts on water usage, construction air quality, agricultural production, toxic chemicals (to the extent cadmium telluride panels are used), and many other impacts. The burden is on the agency to collect this information. *Sundstrom v. County of Medocino*, (1988) 202 Cal.App.3d 296 ("The agency should not be allowed to hide behind its own failure to gather relevant data.").

VII. THE DEIR FAILED TO IDENTIFY A REASONABLE RANGE OF ALTERNATIVES AND FAILED TO ADEQUATELY EXPLAIN WHY THE ENVIRONMENTALLY PREFERRABLE ALTERNATIVE IS INFEASIBLE

An EIR must describe a range of reasonable alternatives to the Project, or to the location of the Project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. "An EIR's discussion of alternatives must contain analysis sufficient to allow informed decision making." (*Laurel Heights I*, 47 Cal.3d at 404.) An EIR must also include "detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project." (*Id.* at 405). "There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason." *Watsonville Pilots Association v. City of Watsonville*, (2010) 183 Cal. App. 4th 1059, 1089.

One of CEQA's fundamental requirements is that the DEIR must identify the "environmentally superior alternative," and require implementation of that alternative unless it is infeasible. (14 Cal. Code Regs. §1526.6(e)(2); Kostka & Zischke, *Practice Under the California Environmental Quality Act* §15.37 (Cont. Educ. Of the Bar, 2008).) Typically, a DEIR identifies the environmentally superior alternative, which is analyzed in detail, while other project alternatives receive more cursory review.

The analysis of project alternatives must contain an accurate quantitative assessment of the impacts of the alternatives. In *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 733-735, the court found the EIR's discussion of a natural gas alternative to a coal-fired power plant project to be inadequate because it lacked necessary "quantitative, comparative analysis" of air emissions and water use.

A "feasible" alternative is one that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. (Pub. Res. Code § 21061.1; 14 Cal. Code Regs. § 15364.) California courts provide guidance on how to apply these factors in determining whether an alternative or mitigation measure is economically feasible.

The lead agency is required to select the environmentally preferable alternative unless it is infeasible. As explained by the Supreme Court, an environmentally superior alternative may not be rejected simply because it is more expensive or less profitable:

The fact that an alternative may be more expensive or less profitable is not sufficient to show that the alternative is financially infeasible. What is required is evidence that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project.

(*Citizens of Goleta Valley v. Bd. of Supervisors* (1988) 197 Cal.App.3d 1167, 1180-81; see also, *Burger v. County of Mendocino* (1975) 45 Cal.App.3d 322 (county's approval of 80 unit hotel over smaller 64 unit alternative was not supported by substantial evidence)).

A. Alternative B is Not a Reasonable Alternative

As previously mentioned, under CEQA Guidelines, "[a]n EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternative." (emphasis added) (CEQA Guideline 15126.6(a) Consideration and Discussion of Alternatives to the Proposed Project). "The purpose of an EIR is *not* to identify alleged alternatives that meet few if any of the project's objectives so that all these alleged alternatives may be readily eliminated." *Watsonville Pilots Association v. City of Watsonville*, (2010) 183 Cal. App. 4th 1059, 1089.

Alternative B is not a reasonable alternative under CEQA guidelines. Alternative B: General Plan Build-Out Alternative would develop the proposed site under the existing Kern County General Plan designations, which "would allow agricultural operations on the site, or with the recordation of a parcel map, construction of 115 residential dwellings (1 dwelling per 20acre parcel) with a reduced amount of potential agricultural production. Under this alternative, no solar facilities would be developed at the site." (DEIR, p. 1-20). While this alternative would "reduce some of the impacts associated with the proposed project," "[t]his alternative would not result in the creation of renewable power and would not meet any of the project operator's objectives for the proposed project." (emphasis added) (DEIR, p. 1-20, 6-14). To reiterate, Alternative B would not meet any of the 10 Project Objectives, which include:

- Develop a solar power generating facility that would provide clean, renewable, solar-powered electricity to the citizens of California.
- Develop a site with an excellent solar resource.
- Develop a previously disturbed site with close proximity to transmission infrastructure in order to minimize environmental impacts.
- Interconnect directly to the LADWP electrical transmission system.
- Use proven and established PV technology.
- Create 385 temporary construction jobs and 5-10 permanent operations jobs.
- Provide an investment in California and Kern County that would create jobs and other economic benefits.
- Assist California utilities in meeting their obligations under California's Renewable Portfolio Standard (RPS) Program. In April 2011, Governor Brown signed into law Senate Bill X1-2, which establishes a new RPS for all electricity retailers in the state. Electricity retailers must adopt the new RPS goals of 20 percent of retail sales from renewable by the end of 2013, 25 percent by the end of 2016, with the 33 percent requirements being met by the end of 2020.
- Assist an off-taker in reducing its greenhouse gas (GHG) emissions as required by the California Global Warming Solutions Act.
- Address local mandates that California's electric utilities have adopted for the provision of renewable energy. Substantial State legislation has been passed related to renewable energy that is relevant to projects.

This is not a reasonable alternative because it does not meet any of the project objectives and therefore should be removed from analysis.

B. The DEIR Fails to Include a Reasonable Range of Alternatives

A reasonable range of alternatives is required to allow informed decision making. Case law developed under the National Environmental Policy Act ("NEPA") helps define what is a reasonable range of alternatives. Courts often look to NEPA cases when interpreting CEQA since CEQA is modeled after NEPA. See *no Oil, Inc. v. City of Los Angeles* (1974) 13 Cal. 3d 68, 86, fn. 21 [118 Cal. Rptr. 34]; *Friends of Mammoth v. Board of Supervisors* (1972) 8 CCal. 3d 247, 261 [104 Cal. Rptr. 761]; *Del Mar Terrace Conservancy, Inc. v. City Council of the City of San Diego* (4th Dist. 1992) 10 Cal. App. 4th 712, 732 [12 Cal. Rptr. 2d 785]; *Mount Sutro Defense Committee v. Regents of the University of California* (1st Dist. 1978) 77 Cal. App. 3d 20, 35-38 [143 Cal. Rptr. 365]; *Environmental Defense Fund, Inc. v. Coastside Water District* (1st Dist. 1972) 27 Cal. App. 3d 695, 701 [104 Cal. Rptr. 197].

Some agencies have failed to meet the procedural requirements of the Act when they have not evaluated a reasonable range of alternatives. For example, in *Davis v. Mineta*, the Federal Highway Administration ("FHWA") prepared an Environmental Assessment ("EA") that was deemed deficient, inter alia, because the alternatives to the highway expansion were inadequate. 302 F.3d 1104, 1110 (10th Cir. 2002). Only two alternatives were studied in detail. Other courts have likewise held that the range of alternatives considered were inadequate in cases that were similar to *Davis*. For example, in *Muckleshoot Indian Tribe v. United States Forest Serv.*, the Forest Service considered only three alternatives: a no action alternative and two virtually identical alternatives. 177 F.3d 800, 803 (9th Cir. 1999). The Court held that the Forest Service failed to consider a range of reasonable alternatives in violation of the law. (*Id.* at 812).

Because Alternative B is not a reasonable alternative as described above, serious consideration will be given to only two alternatives, the No Project Alternative (Alternative A) and the No Utility-Solar Development - Distributed Commercial and Industrial Rooftop Solar Only Alternative (Alternative C). Like the FHWA and the Forest Service, the County has failed to facilitate a reasoned choice by providing only two feasible alternatives (Alternatives A and C). The DEIR fails to provide a reasonable range of alternatives for informed decision-making that is required by CEQA.

A supplemental EIR is required to analyze a reasonable range of alternatives. This should include at a minimum: (1) a reduced scale alternative; (2) an alternative that avoids seismic and flood hazards; and (3) an alternative that avoids cadmium telluride panels.

C. The DEIR Fails to Adequately Explain Why the Environmentally Preferable Alternative is Infeasible

As previously discussed above, the lead agency is required to select the environmentally preferable alternative if it attains most of the basic project objectives, would avoid or substantially lessen any of the significant effects of the project, and would be feasible.

Here, the County selected Alternative C: No Utility-Solar Development – Distributed Commercial and Industrial Rooftop Solar Only as the Environmentally Superior Alternative. (DEIR, p. 6-19). This alternative would site small to medium PV systems (100 kilowatts to 1 MW) on existing developed properties, on rooftops of commercial and

industrial facilities throughout Kern County. (DEIR, p. 6-14). This alternative "would avoid all significant and unavoidable impacts that would occur under the proposed project." (DEIR, p. 6-19). Significant impacts that would be avoided would include, but are not limited to, impacts to aesthetics, air quality, and biological resources. This alternative, as acknowledged in the DEIR, "would achieve most of the project objectives, such as offsetting energy generated from fossil fuels and helping to achieve California's renewable energy goals, while investing in Kern County and creating jobs." (DEIR, p. 6-18).

The distributed commercial and industrial rooftop alternative would also diversify the County's economic base and position the County as a leader in distributed generation—considered by many to be the future of solar development. Distributed generation will also provide for expansion of the project to new structures as they become available and allow for updating and replacement more readily than large scale solar farms. Today's large-scale solar "farm" can quickly become a "dinosaur" compared with the distributed systems that can quickly absorb the new technology about to come online.

However, the DEIR concludes that the Environmentally Superior Alternative is "impractical and infeasible" without providing any evidence to support such a conclusion. None of the information provided in the DEIR would suggest that the Environmentally Superior Alternative is infeasible. The DEIR cites several "drawbacks" to the Environmentally Superior Alternative but does not provide evidence that the alternative is infeasible. (DEIR, p. 6-18). One of the drawbacks cited in the DEIR is that "[t]here would be difficulties with respect to buildout of the system within a timeframe that would be similar to that of the proposed project." (*Id.*). No information is provided regarding what the timeframe would likely be "with respect to buildout of the system." An estimated timeframe – the amount of time (e.g., days, months, years) it would take to implement the Environmentally Superior Alternative – is needed to support the conclusion made in the DEIR that the alternative is infeasible. Another drawback cited is that "[g]iven the distributed nature of such a network of facilities, construction, management, and maintenance would not be as efficient, and total capital costs would likely be higher." (*Id.*). Again no information or details are provided regarding why the Environmentally Superior Alternative would not be as efficient and capital costs would be higher than the proposed Project. Even if capital costs were shown to be more, an alternative cannot be rejected simply because it is more expensive. (*Citizens of Goleta Valley v. Bd. of Supervisors* (1988) 197 Cal.App.3d 1167, 1180-81). A showing would need to be made by the County that the

“additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project.” (*Id.*).

Other reasons cited in the DEIR for the conclusion that the Environmentally Superior Alternative is infeasible include: (1) “[t]he project operator’s business model is focused solely on ground-mounted, utility-scale, PV power plants, (2) a need for “a large sales force dedicated to identifying, qualifying, designing, and implementing thousands of individual projects,” (3) [t]he project operated has not secured any CSI incentives and, as the incentive level continues to decline, likely could not secure incentives that would support a large-scale deployment of 250 MW.” (DEIR, p. 6-18). These “reasons” do not rise to a level that the Environmentally Superior Alternative could be deemed infeasible, i.e., not capable of being carried out or implemented. These reasons may make the implementation of Environmentally Superior Alternative more challenging but the reasons cited do not make the alternative infeasible.

As previously explained above, the County is required to select the Environmentally Superior Alternative if it would avoid significant impacts and meet Project objectives and it is feasible. The Environmentally Superior Alternative would avoid all significant impacts and meet Project objects. The County has failed to support its claim that the alternative is infeasible. The DEIR must be revised to give this alternative serious consideration and explain – with supported facts, not mere conclusions – why the alternative is infeasible.

D. The DEIR Should Consider How the Project and the Alternatives Will Impact Ratepayers

One of the Project’s objectives is to

[a]ssist California utilities in meeting their obligations under California’s Renewable Portfolio Standard (RPS) Program. In April 2011, Governor Brown signed into law Senate Bill X1-2, which establishes a new RPS for all electricity retailers in the state. Electricity retailers must adopt the new RPS goals of 20 percent of retail sales from renewable by the end of 2013, 25 percent by the end of 2016, with the 33 percent requirements being met by the end of 2020.

The DEIR should consider how the Project and the Alternatives will impact ratepayers. Important questions include:

- How will implementation of the project affect the rates that ratepayers will pay for energy?
- How will implementation of the project affect rates paid by residents of Imperial County?
- Will ratepayers be forced to pay for any of the costs to the County resulting from the project?

While these questions would seem to be central to a discussion of the merits of this Project, there has been little or no discussion of how the Project will concretely affect energy rates. A full exploration of these questions should be conducted for the public.

Relevant to this inquiry is a report by the California Public Utilities Commission's Division of Ratepayer Advocates (DRA). The report is entitled, *Green Rush: Investor-Owned Utilities' Compliance with the Renewables Portfolio Standard* (February, 2011) (see attached exhibit). This report points out, among other things, that the cost of renewable energy is quite high and that California:

utilities have signed contracts that will cost them over \$6 billion more than they would otherwise pay for electricity from natural gas power plants...The DRA contends in its report that the CPUC hasn't done a good job scrutinizing contracts to make sure they aren't unreasonably high and won't saddle consumers with hefty bills...The report goes on to say that utilities and the CPUC gives too much weight to whether developers can complete and deliver their projects and not enough to the projects' costs to the public. It notes that the utilities have signed enough contracts to meet the state goals, so there is no good reason to accept super expensive contracts to ensure that the goals are met.

(See below under "Summary of DRA Report." See *also* the full report attached as an exhibit).

Furthermore, the report contains the following finding: "The utilities are on track to achieve the 20% RPS goal by the end of flexible compliance in 2013 and are ahead of schedule to meet the 33% Renewable Energy Standard (RES) goal by 2020, even though some projects scheduled to come online will fail or be delayed." (p. 5, italics added)

CEQA provides that a lead agency "has an obligation to balance a variety of public objectives, including economic, environmental, and social

factors" in justifying its findings. (CEQA Guidelines §§ 15021(d), 15093(a).) The report from the DRA, which is based on recent information, shows that there is no pressing need to rush into approval of a renewable energy project merely to meet the needs of California's RPS goals.

Summary of DRA Report

(available at

<http://www.renewableenergyworld.com/rea/news/article/2011/02/report-cal-utilities-sign-too-many-expensive-clean-power-contracts>).

Report: CA Utilities Signing Expensive Clean Power Contracts
By Ucilia Wang, Contributor
February 21, 2011

It's no secret that renewable electricity in general is more expensive than power from fossil fuels. But how much more expensive? A California report shows that the state's utilities have signed contracts that will cost them over \$6 billion more than they would otherwise pay for electricity from natural gas power plants.

The report, released by the Division of Ratepayer Advocates (DRA) last Friday, says 59 percent of the contracts signed by the state's three largest utilities are priced above the market price referent (MPR), which is a yardstick used by the California Public Utilities Commission (CPUC) in reviewing the contracts. The MPR takes into account the costs of building, operating and maintaining a 500-megawatt combined cycle natural power plant. The more expensive contracts have prices that on average are 15 percent higher than the MPR.

The report looks at the contracts signed by the utilities from 2002 to 2010 in order to meet the state's 2010 mandate called renewable portfolio standard (RPS) to get 20 percent of their electricity from renewable sources. The portion needs to climb to 33 percent by 2020. The contracts analyzed by the DRA include ones with power plants already in operation as well as projects that haven't yet been constructed.

California has set aside funds to allow utilities to sign contracts above the MPR because regulators understand

that renewable electricity is more expensive. It's a price that the public will have to pay to use clean power that is better for the environment. The CPUC publishes the MPR and notes whether each contract it's approved is below or above the MPR. But it doesn't divulge the actual pricing for each contract.

The DRA contends in its report that the CPUC hasn't done a good job scrutinizing contracts to make sure they aren't unreasonably high and won't saddle consumers with hefty bills. It notes that the CPUC has rejected only two out of the 184 it has reviewed. Many of these contracts are for power plants that haven't yet been built, so the actual impact on consumers isn't known.

The CPUC "has approved nearly every renewable contract filed by the utilities, even when contracts rate poorly on least-cost, best fit criteria," the report says.

The report goes on to say that utilities and the CPUC give too much weight on whether developers can complete and deliver their projects and not enough on the projects' costs to the public. It notes that the utilities have signed enough contracts to meet the state goals, so there is no good reason to accept super expensive contracts to ensure that the goals are met.

Not all proposed projects get built, of course, and the expensive contracts reflect the early stages of clean energy development. The California Energy Commission has found that 14 percent of the contracts have failed to deliver while 15 percent have been delayed, the report said. The 14 percent failure rate isn't so high, the DRA notes in the report. The number could climb because of some of the proposed projects are so large that lining up permits and financing will be difficult.

The three utilities, Pacific Gas and Electric, Southern California Edison, and San Diego Gas & Electric, have been signing lots of power purchase agreements. Some of the contracts involved mega projects of hundreds of megawatts each, and those projects have stirred up controversy for their impact on the environment and local communities. A few of

them already have attracted lawsuits or threats of legal challenges.

PG&E has signed more contracts that are priced above the MPR than other utilities. Of the ones PG&E has signed, 77 percent of them are above the MPR. Edison and SDG&E's shares are less than 50 percent. A PG&E spokesman told the San Francisco Chronicle the utility is committed to pay more because many of the contracts are for solar electricity, which can be more expensive than some other sources.

The DRA wants the CPUC to be more selective in approving contracts. Its recommendations include setting a pricing limit annually and requiring utilities that submit especially expensive contracts -- those that are \$100 million more than the MPR-based prices -- to go through a lengthier review process.

DRA adds that the public also should be given easier access to information on how much these renewable electricity contracts are costing so far and will likely cost for the next 10 years, and the progress the utilities are making to meet the state mandates. The CPUC should require the utilities to report that information, DRA says.

"DRA supports the RPS program and cost-effective renewables. However, DRA is concerned that the perceived urgency to comply with the RPS and continuing CPUC approval of high-priced contracts has created an inelastic demand and subsequently driven the renewable market to yield very high prices," the report says.

Given these considerations, and considering that the ongoing "solar gold rush" may be proceeding without due deliberation, the County should give additional consideration to the Environmentally Superior Alternative, Alternative C: No Utility-Solar Development - Distributed Commercial and Industrial Rooftop Solar Only.

VIII. THE COUNTY SHOULD PREPARE AND RECIRCULATE A SUPPLEMENTAL DEIR

Recirculation of an EIR prior to certification is required "when the new information added to an EIR discloses: (1) a new substantial environmental impact resulting from the project or from a new mitigation

measure proposed to be implemented; (2) a substantial increase in the severity of an environmental impact unless mitigation measures are adopted that reduce the impact to a level of insignificance; (3) a feasible project alternative or mitigation measure that clearly would lessen the environmental impacts of the project, but which the project's proponents decline to adopt; or (4) that the draft EIR was so fundamentally and basically inadequate and conclusory in nature that public comment on the draft was in effect meaningless." (CEQA Guidelines § 15088.5; *Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal. 4th 1112, 1130, citing *Mountain Lion Coalition v. Fish & Game Comm'n* (1989) 214 Cal.App.3d 1043.

Recirculation is required where "significant new information" has been added to an EIR. (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 447). New information is "significant" where it results in a change to the EIR's analysis or mitigation of a substantial adverse environmental effect. (See *id.*) to the EIR.

Here, the DEIR must be revised to address the many deficiencies identified above. Specifically, the DEIR must be revised and recirculated to allow the public a meaningful opportunity to comment on a complete analysis of cumulative impacts that includes sources of similar impacts within Kern County. Moreover, the DEIR must be revised to adequately identify, analyze, and mitigate all potentially significant impacts to biological resources and air quality. The DEIR must also be revised to establish a baseline for soil conditions. Finally, the DEIR must be revised to identify a reasonable range of alternatives and explain why the environmentally preferable alternative is infeasible.

IX. CONCLUSION

LIUNA Local 220 believes the Project DEIR is wholly inadequate and requires significant revision, recirculation, and review. Moreover, LIUNA Local 220 believes that the Project as proposed would result in too many unmitigated adverse impacts on the environment to be justified. Given the ongoing "solar gold rush" occurring in the fragile desert areas of southern California, LIUNA believes the proposed Project should be reconsidered. Distributed generation of renewable electricity represents the "low hanging fruit" of solar electricity generation and should be pursued throughout already disturbed areas before sacrificing fragile desert environments and the species that rely on them. In a short time, solar panels will far exceed the technology of today in terms of efficiency. Kern County should think twice before approving a potentially costly

dinosaur in its backyard. The hazards and risks posed cadmium-telluride panels have not been considered to the potential great harm to workers and nearby residents who, even if small in number, deserve and are entitled to full consideration. All of these considerations weigh against approval of the project as proposed.

Thank you for your attention to these comments. Please include this letter and all attachments hereto in the record of proceedings for this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Gideon Kracov", written over the word "Sincerely,".

Gideon Kracov
Attorneys for Laborers International
Union of North America, Local 220

REQUEST FOR APPEAL

Kern County Planning and Community Development Department
2700 "M" Street, Suite 100
Bakersfield, CA 93301
(661) 862-8600

Pursuant to the provisions therefor in Section 19.102.110 or Section 19.102.170 of the Ordinance Code of Kern County, the undersigned hereby appeals the decision of the () Director of Kern County Planning and Community Development Department, () Kern County Planning Commission, wherein Beacon Photovoltaic Project
Case # CUP #11, Map # 152, was (X) approved () disapproved.

The case in question was to allow A Conditional Use Permit to allow for the construction and operation of a
(state fully the request considered)
250 MW solar electrical generating facility within the A, ... A GH FPS, ... and A-1 ... Districts.

and said decision was rendered on September 27, 2012.

This decision is being appealed for the following reasons: Violations of CEQA and General Plan. See attached.

(attach additional sheets if necessary)

Legal description of property involved in this appeal: Four miles from California City, 15 miles north of unincorporated town of Mojave, and less than one mile southwest of the unincorporated town of Cantil / Rancho Seco. In southeastern Kern County, Supervisorial District 2- Scrivner.

Signature: Gideon Kracov Lettered Name: Gideon Kracov on behalf of LIUNA Local No. 220
Street: 801 S. Grand Avenue, 11th Floor Telephone: (213) 629 -2071
City, State, Zip: Los Angeles, CA 90017

FOR OFFICE USE ONLY

Name Kracov Gideon - LIUNA Local # 220
Last First Middle
Case # CUP 11 Map # 152 AP # _____ Existing Zone A0 A-1
Fee \$ 540- Date Filed 10/9/12 Receipt # 189408 S.D. # 2 Rec'd By [Signature]