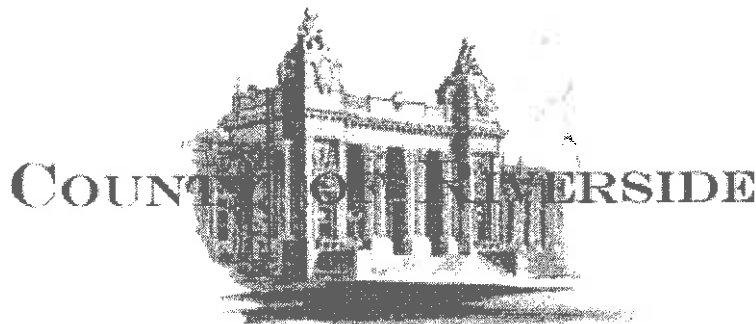


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July 30, 2013

Commissioner Karen Douglas, Presiding Member
Christine Stora, Project Manager
CALIFORNIA ENERGY COMMISSION
1516 Ninth Street, MS-14 (Dockets Unit)
Sacramento, CA 95814-5512

Subject: County of Riverside Comments on the Preliminary Staff Assessment for the Proposed Palen Solar Electric Generating System Amendment (09-AFC-7C)

Dear Commissioner Douglas and Ms. Stora:

The County of Riverside ("County") appreciates the opportunity to provide comments and indicate necessary changes to the Preliminary Staff Assessment ("PSA") submitted by California Energy Commission ("CEC") Staff for the Palen Solar Electric Generating System Amendment ("PSEGS" or "Project"). The County, as an active participant in the licensing process, is grateful to the CEC Staff for attending to many of our concerns. Some of these concerns remain unresolved because additional information is needed. As explained in greater detail below, while PSEGS is located on federal land and under the CEC's certification authority, PSEGS will have impacts on the County, County services and County residents that must be addressed. Given that this is an amendment to an approved CEC decision, the County has focused its comments on the impacts of the changes on County services, facilities, and infrastructure and compliance with County laws, ordinances, and regulations ("LORS").

PSEGS, as amended, will have an impact on County services such as fire and emergency response services, and County roads. Moreover, there is the potential for PSEGS to interfere with the County's Public Safety Enterprise Communication System Project ("PSEC"). In addition, PSEGS will have a significant lasting visual impact on the scenic vistas of the eastern Coachella and Chuckwalla valleys. All of these impacts need to be fully addressed and fully mitigated to the greatest extent feasible so the County and its residents do not unfairly bear the burden of solar energy production at PSEGS. The County is also concerned about PSEGS's impact to biological resources and the necessary mitigation for such impacts.

SUMMARY OF THE PROPOSED PSEGS AMENDMENT

On December 17, 2012, Palen Solar Holdings, LLC (PSH), filed a petition with the CEC requesting to modify the Palen Solar Power Project (PSPP). The PSPP, as licensed by the Energy Commission on December 15, 2010 (Order No. 10-1215-19, the "Final Decision," 09-AFC-7), was a 500-megawatt (MW) solar thermal power-generating facility utilizing parabolic trough technology. As previously approved, the PSPP encompassed approximately 4,366

acres located one-quarter mile north of Interstate 10, about 10 miles east of Desert Center, and approximately halfway between the cities of Indio and Blythe, in Riverside County.

The amendment petition proposes to eliminate the use of solar thermal parabolic trough technology approved under the Commission's earlier decision and replace it with BrightSource's solar thermal power tower technology. Heliostats – elevated mirrors guided by a tracking system mounted on a pylon – will focus the sun's rays on a solar receiver steam generator (SRSG) located atop a 750-foot tower near the center of each solar field to create steam to drive a turbine that generates electricity. The modified project, renamed "PSEGS," would be comprised of two adjacent solar fields and associated facilities with a total combined nominal output of approximately 500 MW.

PSH proposes to develop PSEGS in two operational phases. Each of the two phases would consist of one solar field, one 750-foot tower, and power block with approximately 250 MW of generation capacity. Each solar field would have an array of approximately 85,000 heliostats for a total of 170,000 heliostats for the project. Each phase would also share common facilities, including an administration building, warehouse, evaporation ponds, maintenance complex with a meter/valve station for incoming natural gas service to the site, an on-site switchyard, and a single-circuit 230-kV generation tie-line to deliver power to the electricity grid. Other on-site facilities would include access and maintenance roads (either dirt, gravel, or paved), perimeter fencing, tortoise fencing, and other ancillary security facilities.

The PSEGS is in essentially the same location as the approved PSPP, but will be reduced in size to approximately 3,794 acres, entirely on public land managed by the Bureau of Land Management (BLM). The PSEGS amendment does not propose to change the generating capacity of the PSPP, the site access, or the interconnection point at the Red Bluff Substation, although there would be a re-routing of the generation tie-line near the western end of the route and around the newly constructed Red Bluff Substation. A new natural gas pipeline is also proposed to supply backup generating capacity.

The construction schedule for PSEGS would be 33 months instead of PSPP's previously approved 39-month schedule. The construction workforce for PSEGS would increase over the approved PSPP by 1,166 workers during peak construction for a peak workforce of 2,311 workers. The average daily number of construction workers for the PSEGS would increase by 432 workers, for a daily average of 998 workers. The permanent operations workforce would decrease from 134 for PSPP to 100 for PSEGS.

COMMENTS ON TECHNICAL AND ENVIRONMENTAL SECTIONS OF PSA

Biological Resources

The CEC Staff's preliminary conclusions indicate PSEGS would have significant impacts to biological resources, impacting all of the Sonoran creosote bush scrub, sand dunes, desert washes, and other native plant and wildlife communities within the approximately 3,794-acre site, as well as along the gas pipeline corridor, and the generation tie-line corridor. CEC Staff assumes a total loss of the function and value of the vegetation and habitats within the 3,794-acre project site because perimeter fencing would exclude most animals, and ongoing disturbance, noise, and other activities at the PSEGS site may continue to degrade habitat functions within the PSEGS footprint. While wildlife and plants tolerant of disturbance may

continue to occupy the site, CEC Staff does not consider leaving the vegetation on site a benefit to these species due to ongoing risk of injury or mortality by construction equipment or other project construction or operational work efforts. The County concurs with this conclusion.

The PSA notes that birds and bats may be vulnerable to operational impacts, including collision with heliostats or other project facilities, and to injury or mortality from exposure to solar flux. CEC Staff states this impact is unavoidable, and may be significant even after implementation of mitigation. Additional information is still needed for CEC Staff to make a determination as to these impacts. The County concurs, with concern heightened by recent reports of water bird deaths at the Genesis and Desert Sunlight solar projects currently under construction in Riverside County. Although these bird deaths are still being investigated, it is speculated the reflections from the projects' photovoltaic panels and mirrors may be attracting birds in flight, who mistake the large reflective surfaces as bodies of water. These bird and bat impacts are of significant concern to the County, and the County reserves its right to comment on these impacts after additional information is provided.

According to CEC Staff, PSEGS would require 4,863 acres of compensatory mitigation for desert tortoise. The PSA also notes that other off-site compensatory mitigation land may be required for burrowing owl impacts, pending completion of additional surveys of the new gas pipeline corridor and the modified generation tie-line corridor. While the County agrees such biological impacts must be properly mitigated, the County is concerned that the Project has yet to identify where or how such mitigation will occur. The location of mitigation lands should be discussed now publicly during the Project review stage to validate whether mitigation lands are obtainable and to analyze the location and impacts, if any.

Permanent commitment of vast areas of land for habitat mitigation often necessarily precludes other potential uses, including, but not limited to, agricultural, recreational, commercial, residential and other open space uses. While the County fully supports habitat mitigation, setting aside 4,863 acres of private lands in the unincorporated area of the County could impact other land use plans or opportunities in the County and result in lost opportunity costs. Because Riverside County is one of fastest growing counties in the state, and because it is expected to be the second most populous county in the state by 2044, the commitment of so much land to a single use has serious consequences and could potentially conflict with the following General Plan policies:

- Land Use Element Policy LU 2.1.c. - the County shall provide a broad range of land uses, including a range of residential, commercial, business, industry, open space, recreation and public facility uses (General Plan pg. LU-20).
- Land Use Element Policy LU 7.1 - the County shall accommodate the development of a balance of land uses that maintain and enhance the County's fiscal viability, economic diversity and environmental integrity (General Plan LU- 26).

If private land within the County must be permanently restricted for mitigation purposes, the economic impact resulting from the removal of those lands must be accounted for and further mitigation may be necessary to offset any identified adverse impacts to the County or to the environment.

Cultural Resources

CEC Staff is still collecting and reviewing cultural resources data for PSEGS. CEC Staff states that the proposed change to tower technology:

...would significantly increase the distance from which the project would have the potential to compromise key elements of the integrity of historical resources that rely, in part, on relatively pristine natural landscapes to convey their association with important prehistoric and historic themes.

The County recognizes that prehistoric and historic cultural resources of the Coachella and Chuckwalla valleys are important to many in the region for familial, spiritual, social, academic, and research purposes, and contribute to the present day communities through cultural richness and tourism. The County is concerned about PSEGS's impact on cultural resources, and concurs this issue needs to be evaluated in more depth. The County reserves its rights to comment further on the cultural resources impacts of PSEGS after the additional information is received and reviewed.

Hazardous Materials Management

The County requests that Condition of Certification HAZ-2 be revised to make clear that the project owner is to not only provide the Hazardous Materials Business Plan and Spill Prevention, Control, and Countermeasure Plan to Riverside County Department of Environmental Health and to the Riverside County Fire Department, but that the project owner shall also pay the usual and customary fee for review of those plans, and the usual and customary fee for any necessary and required inspections regarding same.

Socioeconomics

Overall Findings

Long-term, the Project is not likely to be growth inducing, since most of the jobs created will be short-term and the number of long-term jobs are relatively small. However, due to the remoteness of the site, housing workers on both a short-term and long-term basis may be an issue. The County has the following concerns regarding the analysis presented in the PSA.

Population Forecasts

The population projections presented in the PSA are from the most recent California Department of Finance population forecasts released in January 2013, and are for the County overall. For the purpose of regional planning, the most current adopted growth forecast are the 2012 Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) growth forecasts, which include forecasts for population, households and employment (jobs) for 2020 and 2035. The SCAG growth forecasts are available at geographic levels as small as the Traffic Analysis Zone, providing for more detailed analyses. In addition, data are also available for the Riverside County Transportation Analysis Model Traffic Analysis Zones, which are smaller than the SCAG Traffic Analysis Zones. For Riverside County as a whole, the DOF and SCAG forecasts are consistent. However, using the more granular projections from SCAG may provide more accurate localized analyses of project impacts.

Table 6

This table is incomprehensible. Under the columns labeled "2010" and "2020," there are a series of numbers associated with several trades. For example these numbers are associated with the Surveyor trade: '1,420440' and '1,670520.' It is unclear just what these numbers represent. It is clear they do not represent the numbers of jobs for the trade. In comparison to Table 12, it appears that these numbers should read 440 and 520 respectively, although the County cannot presume this.

Table 8

First, the County questions the selection of cities and census designated places included in the PSEGS Regional Study Area reflected in Table 8, as it does not appear to accurately represent the localities most likely to be impacted. For example, the City of Coachella is not included, although it is along Interstate 10, nor are the communities of Thermal or Mecca, and all three are closer to the project site than the City of Indio, which is included. Likewise, the communities of Bermuda Dunes and Thousand Palms are excluded, although they are closer to the project site than Palm Springs. Finally, the Palo Verde CDP is included, although it is south of the City of Blythe and actually located in Imperial County, yet the Riverside County communities of Mesa Verde and Ripley are not included. Mesa Verde is west of the City of Blythe, and therefore closer to the project than Blythe, and Ripley is just south of the City of Blythe, well before Palo Verde.

The vacancy rates presented in these tables represent the total vacancy rate, including units that are vacant but not available for rent or purchase. Such vacancies include units that are rented but not occupied, units sold but not occupied, units for seasonal, recreational, or occasional use, and other vacant units. The table below compares the number of total vacant units to the vacant units available for rent or purchase. As seen in this table, the for sale and for rent vacancy rates are considerably lower than the PSA indicates. This is attributable to the fact that 67 percent of the vacant units in this region are for seasonal, recreational, or occasional use. Therefore, the PSA's conclusion that there is ample housing available may be an over estimate.

Place	Total housing units	Occupied housing units	Vacant housing units	For rent	For sale only	Vacancy rate	Vacant for Sale	Vacant for Rent
Blythe	5,473	4,513	960	248	100	17.5%	1.8%	4.5%
Cathedral City	20,995	17,047	3,948	786	472	18.8%	2.2%	3.7%
Desert Center	140	85	55	13	6	39.3%	4.3%	9.3%
Indian Wells	5,137	2,745	2,392	85	124	46.6%	2.4%	1.7%
Indio	28,971	23,378	5,593	1,166	810	19.3%	2.8%	4.0%
Palm Desert	37,073	23,117	13,956	1,616	798	37.6%	2.2%	4.4%
Palm Springs	34,794	22,746	12,048	1,744	974	34.6%	2.8%	5.0%
Palo Verde CDP	211	84	127	10	7	60.2%	3.3%	4.7%

In addition, with regard to the information also presented in Table 7 it is inappropriate to assume these housing units, simply due to their vacancy, are within the rate categories of the income level of the typical construction worker. A number of the cities listed in Table 8 have some of the highest real estate and rental prices in the country, and it is likely that a significant

percentage of the vacancies that are available are not within reach of the average solar worker. Given that adequate livable housing for low and moderate income residents in the Coachella, Chuckwalla, and Palo Verde valleys is already considerably strained, the County is concerned that the cumulative effect of multiple solar power plants under construction at once could create a gold rush boom/bust cycle that will price out existing residents, and the potential for this in the communities most likely to be impacted is not being adequately addressed in the PSA.

Furthermore, on page 4.8-6, the second paragraph states:

Staff's demographic screening is designed to identify the presence of minority and below-poverty-level populations within a six-mile area of the proposed project site. The six-mile buffer is based upon air quality modeling, which shows that project-related impacts from pollutants decrease to less than significant within six-miles of the emission site. (Emphasis added)

Measuring social justice impacts within a six mile buffer based on urban air quality modeling methods is not a valid means of analyzing the overall socioeconomic impacts of a solar power plant in a remote rural setting. This is particularly so in cases such as this, where the nearest inhabited community is ten miles away, the average commute time necessary to reach the project site is gauged by the PSA in hours, and a significant percentage of the existing population of the region fits the minority and poverty level criteria.

With regard to the construction section on Page 4.8-15, the second paragraph states:

During the peak construction month, up to 347 workers for the PSEGS could seek local lodging. This number is considered less than significant as these workers would most likely already live within the regional study area and would be part of the Riverside County Sheriff's Department population served.

This assumption overlooks the fact that those workers will not necessarily live within the service area of the Sheriff's Colorado River Station. Many of the vacancies, discussed above, were identified as being within cities such as Indio, Palm Desert, and Palm Springs, which are considerably beyond the service area of this station, and are, in fact, funded and operated by cities, not by the County Sheriff.

On page 4.8-22 the PSA states that:

Staff also concludes that like the PSEGS, as was the conclusion for the approved PSPP, workers seeking RV and campsite lodging from cumulative projects would likely not find availability within the winter months. Based on the availability of local temporary housing within a two-hour commute range (as discussed above for the PSEGS), it is assumed, from a cumulative perspective, that ample temporary short-term housing is available for any workers seeking short-term local lodging.

As outlined above, this conclusion is flawed because the data used do not accurately reflect true vacancy rates, do not take into account actual affordability of available housing within reach of the solar workforce, do not include communities within the study's commute range most likely to be impacted, and do not adequately examine the potential environmental and social justice

impacts on some of the County's most vulnerable communities. Therefore, the County concludes that the PSA's assumption of adequate available housing for all types of construction workers in all the fields that constitute the prospective solar workforce anticipated for the Project is unproven. Furthermore, the County concludes that from both an environmental and social justice standpoint, the potential economic impact on a number of Riverside County's most economically fragile communities remains unexamined.

Finally, on page 4.8-18, the PSA states that:

If any operational employees were to permanently relocate to the local study area, it is assumed that some percentage of this population would purchase homes and contribute to the local community through the payment of property taxes.

It is worth clarifying that the purchase of homes by "some percentage" of the Project's permanent operational staff would only result in a net benefit to the County if the sale of such homes results in greater property tax revenue than presently received on the same homes. This would occur on the sale of a new home, or if sale of an existing home triggered an increase in assessed value of the home. However, given trends in real estate values over the last seven years, it remains highly likely that the sale of an existing home may actually result in a *reduction* of assessed value and a net loss of revenue to the County. Therefore, CEC Staff should not automatically assume that home buying by permanent operational staff will result in a net benefit to the County.

Traffic and Transportation

The County is concerned about the impact that construction-related traffic will have on County roads and intersections. Absent the CEC's certification authority, the County would have the ability to ensure mitigation of these impacts to County roads and intersections, and respectfully requests the CEC do the same.

The PSA notes that PSEGS will generate more construction traffic than the originally proposed project, but that additional information is still needed to determine whether the proposed PSEGS's construction traffic would significantly impact traffic level of service (LOS) on nearby roadways and intersections. At this point, however, PSEGS's construction traffic impacts to traffic LOS on roadways and intersections are unknown, and the County agrees that additional information is still necessary. Once this information is received and reviewed, the County can complete the analysis of PSEGS's construction traffic impacts, the County reserves its rights to comment further after the additional information is received.

In addition, the PSA assumes carpooling would generate a 7.5 percent reduction in construction vehicle trips, with an approximate average of 1,461 one-way trips generated by day shift construction workers and 3,145 peak daily one-way trips. However, it is not demonstrated how these carpooling assumptions were determined, verified or confirmed. Publicly verifiable sources supporting this statistical data should be stated so the impacts can be assessed.

Further, prior to approval of the PSEGS amendment, the County requests the Project owner be required to perform and provide analyses of the pavement structure for all County roadways that may be utilized by PSEGS's construction traffic. If the analyses determine the pavement would

not provide sufficient load bearing capacity for the construction traffic, the County would require, and requests that the CEC require, the Project applicant to provide road improvements specified by the County Director of Transportation. The County further requests the Project owner restore all County public roads, easements, and rights-of-way that may be damaged due to Project-related construction activities to original or near-original condition in a timely manner. The County respectfully requests that Condition of Certification TRANS-3 be revised as follows to include reference to the County of Riverside:

TRANS-3 The project owner shall restore all public roads, easements, and rights-of-way that have been damaged due to project-related construction activities to original or near-original condition in a timely manner, as directed by the CPM and County of Riverside. Repair and restoration of access roads may be required at any time during the construction phase of the project to assure safe ingress and egress.

In addition, the County requests that the Project owner be required to provide financial security to the County, in a form acceptable to the County, to ensure the restoration or replacement of County public roads, easements, and rights-of-way.

The County also requests that the Traffic and Transportation Conditions of Certification be amended to require that all monthly compliance reports ("MCRs") be forwarded to the County of Riverside Department of Transportation for review and comment.

The PSA notes additional information is still being evaluated to fully determine potential glint and glare impacts to motorists and pilots from PSEGS's heliostats and solar receiver steam generators. The County is concerned that such visual impacts will attract attention of motorists on Interstate 10 and impact driver visibility, which could lead to an increased number of collisions near the Project site and an increased demand for County emergency services. The County reserves its rights to comment further on the glint and glare impacts after the additional information is received and reviewed, as any such impacts to motorists and pilots could foreseeably lead to an increased burden on County emergency services.

The County also recommends that a 24-hour telephone line be established and published for complaints from the public, motorists, and pilots concerning the glint and glare coming from the Project.

Visual Resources

The County has concerns about the visual impact of PSEGS. CEC Staff concludes that PSEGS, after implementing all staff-recommended conditions of certification, would still have significant and unavoidable adverse direct visual impacts. CEC Staff also concludes that PSEGS's contribution to significant accumulated visual effects would be cumulatively considerable when combined with the effects of other renewable and development projects along the Interstate 10 corridor, within the Chuckwalla Valley, and within the California Desert Conservation Area as a whole. Further, CEC Staff concludes that PSEGS would not be consistent with several applicable goals and policies of the Riverside County Integrated Plan (General Plan).

Project impacts, in combination with existing and foreseeable future solar and other development projects within the Interstate 10 corridor in Riverside County, will contribute to a

perceived sense of cumulative industrialization of the currently open, undeveloped desert landscape of the Chuckwalla Valley, and impact views of scenic resources experienced by Interstate 10 motorists, local residents, and recreational visitors within the Project viewshed.

The County agrees with CEC Staff that the significant visual impacts cannot be fully mitigated. The County further agrees the Project will be inconsistent with several important policies of the Riverside County General Plan. In particular, PSEGS would not be consistent with the following General Plan policies:

- Land Element Policy LU 8.1 - Provide for the permanent preservation of open space lands that contain important natural resources and scenic and recreational values.
- Land Use Element Policy LU 13.1 - Preserve and protect outstanding scenic vistas and visual features for the enjoyment of the traveling public.
- Land Use Element Policy 13.3 – Ensure that the design and appearance of new landscaping, structures, equipment, signs, or grading within Designated and Eligible State and County scenic highway corridors are compatible with the surrounding scenic setting or environment.
- Land Use Element Policy 20.1 - Require that structures be designed to maintain the environmental character in which they are located.
- Land Use Element Policy 20.2 - Require that development be designed to blend with undeveloped natural contours of the site and avoid an unvaried, unnatural, or manufactured appearance.
- Land Use Element Policy 20.4 - Ensure that development does not adversely impact the open space and rural character of the surrounding area.

Further, the Project is inconsistent with the development standards for any zone in the County's zoning Ordinance No. 348. The two 750-foot tall concrete towers of the Project do not comply with the height limits in any zone in the County. While the Project is not subject to the County's land use ordinance because it is located on BLM land, this inconsistency with the County's zoning ordinance further demonstrates the visual impact of the Project. There are no other projects of similar height anywhere in the unincorporated area of the County.

County scenic vistas, desert wilderness areas, and open space areas in the Project viewshed will be strongly impacted by effects of bright glare from the Project towers and possibly from the heliostats. However, the County does not believe the proposed mitigation is sufficient to off-set the vast changes being imposed on motorists traveling Interstate 10, local residents, and recreational visitors within the vicinity of the Project. Since these impacts cannot be fully mitigated, the residents living in the vicinity should reap some benefit from the Project that they will see and live with daily. The currently proposed mitigation does little to shield against the visual impact or protect the scenic viewshed. The County asks for stronger efforts to minimize and fully mitigate the visual impacts of the Project.

Waste Management

The PSA concludes that available landfill capacity is sufficient to accommodate PSEGS's construction and operations; that PSEGS would be consistent with the applicable waste

management laws, ordinances, regulations, and standards; and that if the PSPP conditions of certification are implemented, no cumulative waste management impacts would occur. However, the PSA also states that staff is awaiting the following information from the Project owner:

- An updated Environmental Assessment;
- The estimated type and volume of hazardous and non-hazardous waste expected to be generated by construction and operation of the proposed project; and,
- An updated summary of the anticipated operation waste streams, estimated waste volumes, and generation frequency and proposed management methods.

Since landfills in Riverside County are most likely to be used for disposal of waste generated by PSEGS, the information above is essential to evaluate PSEGS's impact on the County and compliance with LORS. The County reserves its rights to comment further on the waste management impacts of PSEGS after the additional information is received and reviewed.

Worker Safety & Fire Protection

The Riverside County Fire Department ("RCFD") reviewed the Worker Safety and Fire Protection section of the PSA for the PSEGS amendment, as well as a copy of the staff's recently docketed Emergency Response Matrix. RCFD commented on the Project during CEC workshops, and the County appreciates the CEC Staff's obvious consideration of RCFD's comments and acknowledgment within the PSA of the impacts PSEGS would have on County emergency services.

The following comments are made in response to information in the PSA and the matrix. Please be advised the County reserves the right to provide additional comments or modify its comments upon receipt of further information from the CEC or PSH. As noted in the summary and Worker Safety and Fire Protection section, additional data has been requested from PSH by CEC Staff. Further firefighting and rescue equipment or other accommodations may be found necessary at, on, or within the tower or power block complex based on input from Fire Operations staff once full plans are received for review.

While the County acknowledges the change in technology reduces the presence of flammable products on site, there still remain significant potential site hazards and worker safety risks. There remain numerous sources of potential fire and explosions, medical emergencies, and technical rescues, and ultimate responsibility for response to any such emergencies rests with RCFD. In many respects, from an emergency response perspective, a number of these significant risks and hazards, and the relative difficulty in successfully responding to them, are actually greater under the proposed tower technology than under the previously approved trough technology, and these greater risks and hazards off-set the reduction in risk attributable to the removal of flammable products.

The standard base level staffing, training and equipping of existing fire stations serving this area is not adequate under OSHA standards to handle the technical rescues and emergencies the Project may cause, both during construction and operation. RCFD must prepare for more complex emergencies requiring technical expertise and specialized equipment including, but not limited to, confined space, trench, hi-angle rope rescues, entrapments, etc. This also may

include medical emergencies which occur in restricted access locations in and around the power block or within the towers.

Normally, such emergency response capability is provided by truck companies. Truck companies are each staffed by four of RCFD's most highly trained firefighters, and equipped with a veritable rolling tool box of specialized tools and equipment to cover such technical rescues. Currently, RCFD has only seven such truck companies covering the urbanized and industrial areas of Riverside County. The closest truck company is located in Indio, and would have a response time of approximately one hour. In light of the greater risks of industrial accidents and emergencies that this and other solar thermal projects generally pose to eastern Riverside County, this response time is unacceptable.

To address the expanding need to provide industrial levels of emergency response to historically rural areas of Riverside County's desert, RCFD will have an immediate and urgent need to rapidly ramp up a significantly greater level of planning, staffing, equipping, training, housing, and overall preparedness for responding to these potential and likely emergencies before major construction activity begins on the Project. Given it has not historically been necessary to configure and prepare RCFD Battalion 8, which covers that region of the County, to respond to industrial developments, and would not be necessary to this degree if the PSEGS and Genesis projects did not occur, PSEGS will therefore have a significant impact on the County's emergency services which must be mitigated.

It is important to remember that when this and other large scale solar thermal projects were first being evaluated and decided upon in 2010, there was recognition by the CEC of the significant impacts to RCFD. It was further determined by the CEC that the impacts to RCFD must be fully mitigated, and those mitigations were crafted by the CEC to be spread out over four solar thermal projects. In reality, there is now one project underway that is contributing (Genesis), and this project (Palen) in which there is a request to reduce their participation in our mitigation. As of the date of this letter, the other two solar thermal projects, Blythe and Rice, have not moved forward. The County does not have the ability to go back and re-condition Genesis for a larger participation level.

This leaves Riverside County with still having a need to increase our fire and emergency service level in order to serve PSEGS and Genesis, and a significant lack of mitigating funds in order to cover our costs to do so. It is therefore crucial that fire mitigation not be decreased as proposed by PSH, but instead at minimum, the previous level of mitigation conditioned for the Project be maintained – commensurate with the mitigation currently paid by the Genesis project.

Regarding specific proposed Conditions of Certification for Worker Safety and Fire Protection, the County, at the recommendation of the County Fire Chief, respectfully submits the following comments:

Worker Safety-1 through Worker Safety -4: The County continues to support.

Worker Safety-5: The County supports the presence of an on-site Automatic External Defibrillator (AED) program and the concurrent training of sufficient staff to ensure there is always someone on site capable of putting it into service. However, while the inclusion of an AED is warranted for heart-related emergencies, the type of medical emergencies more likely to be seen will be traumatic worker injuries. Therefore, the County recommends the CEC require

that, *in addition* to an AED being on site, the same delegated staff and foremen be trained in First Aid and CPR to a recognized standard, such as American Red Cross. In addition, the County recommends requiring Trauma/First-Aid kits sufficient to handle anticipated industrial accidents. Identical Trauma/First-Aid kits should also be located in the field (i.e.: in vehicles) at all times with those delegated staff and foremen as mentioned in Worker Safety-5. The County requests that Worker Safety-5 be amended to reflect this change.

Worker Safety-6: Worker Safety 6 addresses secondary access. In the PSA, CEC Staff recommend requiring two secondary access gates be provided in addition to the main gate and eliminating the previous specific requirement to provide a secondary access road, with the all-wheel drive fire engines purchased for the Genesis solar project to be used in lieu of a completely separate access road to the site. Regarding the road access, the County reminds CEC Staff and the applicant that any roads conditioned for fire access must meet Riverside County Fire Standards.

Regarding the fire engines, it should be noted that the accepted life span of a fire apparatus is 20 years – with 15 years generally seen serving in a front-line capacity, and 5 years in reserve. This means these two all-wheel drive fire engines, expected to go into service in 2013, will be scheduled for 15-year replacement in approximately 2028. However, this is only halfway through the anticipated PSEGS life-span of 30 years. In order to maintain adequate equipment coverage during the full life of the Project under the secondary access conditions modified as proposed, the County proposes the project owner be required to pay to Riverside County Fire in engine year 15 the then-current cost difference between two two-wheel drive fire engines and two all-wheel drive fire engines to mitigate the added cost of upgrading these engines.

Worker Safety-7: CEC Staff proposed a modification to Worker Safety-7 which reduces the overall dollar amount of this mitigation. Unfortunately, the County disagrees with CEC Staff's conclusions and recommendation on this point. As discussed at length above, RCFD has determined, consistent with the findings of the CEC's own Emergency Response Matrix, that the relative potential risks and hazards posed by this Project, and the corresponding level of emergency response preparedness necessary as a result, remain significant under the proposed change in technology. Furthermore, we have concluded that the change in technology does not afford us any reduction in needed mitigation. This will include the need for increased staffing and equipment, which in turn will entail expanded facilities, as well as ongoing training and planning.

As outlined in more detail in Attachment A to this letter, at this time RCFD has identified the ongoing need for the addition of two additional firefighters per shift at the Blythe Airport Station (#45) an added annual cost in present dollars of \$831,000 in addition to the position already added to the Lake Tamarisk Station (#49) at an annual cost of \$334,000, and 24/7 coverage by a battalion chief at an annual added cost of \$230,000. RCFD has also identified one-time needs for equipment upgrades estimated at \$158,000 and technical rescue training totaling \$120,000, with ongoing annual training for recertification and skills refreshers totaling \$40,000 per year. In addition, to adequately house the additional personnel, trucks and equipment, RCFD will need to expand and/or replace facilities at both the Lake Tamarisk (#49) and Blythe Airport (#45) Fire Stations, at a currently estimated total cost of approximately \$5,000,000.

The annual mitigation payment of \$375,000 received from the Genesis project is currently being used to support the additional position at the Lake Tamarisk Station, and the anticipated one-

time payment of \$850,000 from that project will be applied to offset a portion of the anticipated capital costs. Since one of the projects (Blythe) on which these mitigation thresholds were calculated is changing to lower impact photovoltaic technology, and one (Rice) currently appears dormant, it is crucial to the County that at minimum the CEC condition the fire mitigation for PSEGS at the same level previously approved for PSPP. Given that the County is agreeing to accept secondary access gates, rather than insisting on a secondary access road, which will generate significantly greater project savings, the County does not see this request to maintain the previously approved mitigation level to support essential emergency response services as unreasonable.

Worker Safety-8: The County supports.

Worker Safety-9: The County supports.

Worker Safety-10: The proposed Worker Safety-10 addresses the need for RCFD to conduct plan checks and provide comments, and likewise provides that the Project owner pay RCFD its usual and customary fee for the review of those plans. However, there is no reference to the necessary *inspections* RCFD requests be done in conjunction with the CPM. RCFD's usual and customary fees for such inspections must also be paid timely by the Project owner.

In addition, the County requests that the following Worker Safety Condition of Certification be added:

Worker Safety – 11: The project owner shall comply with NFPA 56(PS) and not allow any fuel gas pipe cleaning activities on site, either before placing the pipe into service or at any time during the lifetime of PSEGS, that involve "flammable gas blows" where natural (or flammable) gas is used to blow out debris from piping and then vented to atmosphere. Instead, an inherently safer method involving a non-flammable gas (e.g. air, nitrogen, or steam) or mechanical pigging shall be used. Pursuant to NFPA 56(PS), exceptions to this provision may be allowed only if no other satisfactory method is available, and then only with the approval of the CPM.

Finally, the County understands as of this writing that PSH is currently preparing or has prepared its own Fire Needs Assessment. The County reserves the right to issue additional comments on the PSA with regard to Worker Safety & Fire Protection, in light of any comments received from PSH on the PSA and any information contained in PSH's Fire Needs Assessment.

Riverside County's Public Safety Enterprise Communication System Project ("PSEC")

As stated during prior workshops and in prior correspondence on this Project, the County is concerned about PSEGS's impacts on the County's Public Safety Enterprise Communication System ("PSEC") project. The County has invested \$178 million in PSEC, a new regional public safety voice and data communication network. When fully implemented in December of 2013, the PSEC system will provide voice and data communication for law enforcement and other public safety first responders. The PSEC system will deliver enhanced interoperability between public safety agencies through a network of seventy-seven radio tower sites located throughout Riverside County. Since the PSEC sites are secure sites, the County can only provide general locations in a public document such as this letter.

As previously advised to the CEC, Riverside County Information Technology ("RCIT") identified concerns that the height of the two proposed 750 foot solar power towers may obstruct the PSEC microwave network. Microwave functions on direct line of sight to connection points, and is the backbone technology of the PSEC network. Microwave provides the link to every site and a path back to the master site. If the proposed solar power towers are positioned between PSEC microwave paths, they will disrupt mission-critical PSEC communications, including those of law enforcement and other public safety first responders.

After a preliminary review, RCIT does not at this time believe that the two solar power towers as currently proposed in the amendment will block PSEC's present microwave paths. However, if the tower locations change, or if an A1 study for aircraft is completed, the County requests that RCIT be given the opportunity to re-run the PSEC microwave path profiles using the A1 coordinates to make a final determination on whether or not line of sight issues exist.

Second, the County has concerns about the potential impact the large heliostat fields may also have on the PSEC microwave network, which were confirmed and are shared by our microwave vendor. The proximity of the Project's heliostats to the County's communications tower located south of the Project could create reflections into the microwave dish. If this occurred, the PSEC microwave network could be rendered inoperable from that location. This microwave path supports public safety communications throughout the Chuckwalla Valley. Any potential downtime of that microwave tower could compromise response times during emergencies and jeopardize public health and safety throughout the region.

County staff has met with PSH representatives to discuss the County's concerns. As a result of those discussions, the County requests the following Condition of Certification be added:

"HELIOSTAT POSITIONING PLAN

[Condition of Certification Number] The project owner shall prepare and implement a Heliostat Positioning Plan that would minimize potential for human health and safety hazards from solar radiation exposure and avoid heliostat and solar flux interference with the operation of the Riverside County public safety communication system, currently known as the Riverside County Public Safety Enterprise Communication System (PSEC).

Verification: Within 90 days before PSEGS commissioning, the project owner shall submit a Heliostat Positioning Plan (HPP) to the CPM for review and approval. The project owner shall also submit the plan to potentially interested parties that include Riverside County, Caltrans, CHP, FAA, and the Department of Defense (DOD) Southwest Renewable Energy Work Group for review and comment, and forward any comments received to the CPM. The Heliostat Positioning Plan shall accomplish all of the following:

1. Identify the heliostat movements and positions (including reasonably possible malfunctions) that could result in potential exposure of observers at various locations including in aircraft, motorists, the

Riverside County PSEC microwave system, public safety personnel and vehicles, pedestrians and hikers in nearby wilderness areas to reflected solar radiation and interference, including but not limited to solar flux interference, from heliostats;

2. Describe within the HPP how programmed heliostat operation would address potential human health and safety hazards at locations of observers, and would limit or avoid potential for interference with operation of the Riverside County public safety communication system;
3. Prepare a monitoring plan that would: a) obtain field measurements in candela per meters squared and watts per meter squared to validate that the Heliostat Positioning Plan would avoid potential for human health and safety hazards consistent with the methodologies detailed in the 2010 Sandia Lab document presented by Clifford Ho, et al¹, including those referenced studies and materials within related to ocular damage; and b) provide requirements and procedures to document, investigate and resolve legitimate human health and safety hazard complaints prioritizing localized response (e.g., screening at location of complaint) regarding daytime intrusive light.
4. The monitoring plan shall be made available to interested parties, including Riverside County, Caltrans, CHP, FAA, and the Department of Defense (DOD) Southwest Renewable Energy Work Group, and be updated on an annual basis for the first 5 years, and at 2-year intervals thereafter for the life of the project.
5. The HPP shall include a communication protocol for Riverside County with specific contact information whereby Riverside County public safety representatives or designees can speak directly to a representative at the PSEGS site 24 hours a day, seven days a week, to respond immediately to Riverside County requests to investigate interference with operation of the Riverside County public safety communication system (currently known as PSEC). Said specific contact information shall be for representatives at the PSEGS site that are knowledgeable about the heliostat operations, movements and positions and who have authority to take immediate steps to stop the interference with operation of the Riverside County public safety communication system, including but not limited to, repositioning or stowing the interfering heliostat(s)."

Detailed Facility Closure Plan

The PSA states that the Project owner currently is:

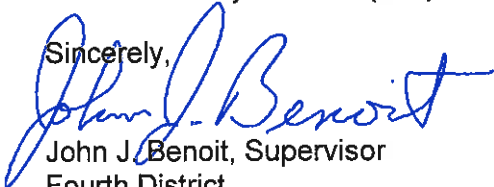
...preparing a draft Reclamation & Decommissioning Plan for the project and will submit the plan to BLM prior to release of the Final EIS. This document in conjunction with the General Conditions provided in this PSA, will outline the requirements for facility closure of PSEGS.

The County understands that a fully detailed facility closure plan may not be possible at this time while the Project is still in the development stages. However, a framework for a closure plan should be discussed publicly now, during the CEC's Project review stage, to validate if the closure plan is possible, if it will be sufficient, and if it entails impacts requiring mitigation. Moreover, when the final plan is submitted, a noticed public hearing should be conducted prior to adoption of the plan.

Furthermore, the County respectfully asks that the Project owner be required to post an adequate financial assurance prior to the start of construction, based on estimated costs, should the Project owner fail to comply with the plan at closure. The provision of financial assurance is an important guarantee, without which there can be no expectation that a project owner will have either the interest or the funds to reclaim the industrial site. Although PSEGS is on entirely on BLM land, the County has a strong interest in ensuring that the Project is decommissioned in an environmentally and fiscally responsible manner, and that the County and its citizens bear no burden for such decommissioning – or project abandonment.

Thank you, again, for the opportunity to provide comments on amendment of this Project, which will have a lasting, irreversible impact on the County of Riverside. As the Project moves forward and additional information about the Project is known, the County reserves the right to issue additional comments on the Preliminary Staff Assessment and Final Staff Assessment. Should you need additional information from the County, please contact Supervising Deputy County Counsel Tiffany North at (951) 955-6300 or Principal Planner Adam Rush at (951) 955-3200.

Sincerely,



John J. Benoit, Supervisor
Fourth District
Chairman of the Board



ATTACHMENT A
RIVERSIDE COUNTY FIRE DEPARTMENT
IN COOPERATION WITH
THE CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION

John R. Hawkins ~ Fire Chief
210 West San Jacinto Avenue ~ Perris, CA 92570
(951) 940-6900 ~ www.rvcfire.org

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Battalion 8 Solar Project Impacts and Mitigation

Eastern Riverside County Solar Projects – Issue Summary

In an effort to meet growing energy demands, and decrease reliance on petroleum or less ecologically friendly resources such as coal, there has been a national push to harness “Green” energy from the sun. The vast expanses of open desert in eastern Riverside County are experiencing this growth in the form of huge tracts of land being turned into industrial complexes dedicated to solar energy. The impact to the Fire Department of this large scale industrialization is the added potential for accidents and injuries related to the construction and operation of these various projects. The type of accidents which accompany these projects can include trench collapse, confined space entry, physical entrapment, as well as elevated or high angle rope rescue needs. Current fire department resources serving that area are not adequately staffed, trained or equipped to handle these specialized technical rescues.

Fire Protection Overview

Riverside County Fire Department (RVC Fire) Blythe Battalion (Battalion 8) covers about 4900 square miles. Battalion 8 spreads from Chiriaco Summit on the west to the California/Arizona border at the east, the Riverside/San Bernardino county line to the north and the Riverside/Imperial County line to the south. Battalion 8 has 4 staffed fire stations. These stations are operated with 3 person engine companies, except for Fire Station 49 at Desert Center. This engine is now staffed with 4 persons on duty daily – which is consistent with the goals of this program. At least one employee on each engine daily is a certified Paramedic providing Advanced Life Support.

The RVC Fire engines in Battalion 8 are limited in their ability to handle Technical Rescue responses. These limitations are directly related to the availability of equipment, personnel and the training levels/certifications needed to mitigate these types of emergencies. Paid staff on engines are only certified to a very basic *Awareness* level for Confined Space and Hazardous Materials, and are not trained in trench rescue and high angle rope rescue systems.

Battalion Solar Project Impacts and Mitigation Page 2

Their engines are not adequately equipped with the necessary equipment for these rescues. Within Riverside County, complex Technical Rescues such as these are handled by "Truck Companies". These truck companies are each staffed by 4 of our highest trained firefighters, responding with a veritable rolling tool box of specialized equipment and outfitting to affect these rescues. Currently RVC Fire has 7 truck companies covering the urbanized and industrial areas of Riverside County. The closest RVC Fire Truck Company to the Blythe/Palo Verde area is located a considerable distance away in Indio, and would have a response time in excess of an hour and forty minutes. Based on the extended response times for existing Technical Rescue resources to the eastern County area, the RCOFD recognizes the need to expand the capability of our Fire and Rescue services in Battalion 8.

Recommended Staff, Equipment, Facility, and Training Enhancement

It is the goal of the RCOFD to staff, equip and train our Battalion 8 personnel to a level providing them the capability to initiate and handle most technical rescues in an expedient fashion without waiting extensively for additional responders from outside the area. Although this normally and consistent with our County-wide operations would be provided by the addition of a Truck Company, it was felt that a non-standard approach would be a better fit to the service area. After much discussion and review, the following service enhancement program has been designed:

Establish and maintain 4 person staffing on E-49 (Lake Tamarisk Fire Station). Due to the remoteness of this station (approximately 45 minutes from the next closest stations), 4 person staffing is to be maintained on this unit, allowing for immediate "2-in/2-out" entries. Training for officers will be upgraded to include technical rescue training. Additional Technical Rescue equipment will be allocated to this station to assist with these type incidents. (note: 4 person staffing has already been initiated)

Establish and maintain a 2 person rescue squad at Fire Station 45 (Blythe Airport). A two person/paramedic equipped medium duty squad will be staffed at Fire Station 45, which will be task-forced (joined) with adjacent engine companies to provide Technical Rescue services. This unit will be equipped with confined space entry equipment, rope rescue equipment, trench shoring, jacks and airbags, cutting torches, saws and many other tools normally carried by a Truck Company. Additional shoring materials will be carried in a small utility support trailer.

Increase Training Program for Battalion 8 staff. Training program will be designed to provide qualified personnel to respond to technical rescues. This will include compliance with CCR Title 8 GISO Sections 5156, 5157 and 5158 as well as appropriate State recognized certifications. The training-needs mitigation will cover both initial training and ongoing in-service and recertification.

Provide increased Battalion Chief Coverage. Due to the technical nature of the Solar facilities and the potential complex rescues associated with construction and operations, in-area Battalion Chief response coverage is needed beyond current 3-day per week local administrative coverage. As projects come online, and funding allows, the goal will be 7/24 Chief Officer presence in the area.

Battalion Solar Project Impacts and Mitigation

Page 3

Update Fire Stations to accommodate increased equipment and staffing. Current Stations in the area are undersized in their ability to accommodate the required personnel and equipment. The goal is to ultimately replace both structures (Fire Stations 45 – Blythe Airport and 49 – Lake Tarrisk) using a combination of Solar mitigation, DIF and other available funds.

Provide a replacement program for rescue tools and equipment as they wear out or reach the end of their normal service life. Budget the cost of replacing equipment needed due to general wear and damage incurred during training and emergencies as well as those times which may reach the end of their acceptable service life.

Cost Estimates

The design of this program is to provide a specific plan with quantifiable upgrades to personnel, equipment and training, and account for those mitigating costs in a direct auditable trail to monies spent from any Solar Project developer.

The cost impacts to the fire department as a result of under construction and currently proposed Solar Development in the region are estimated below. The cost estimates are made based on current personnel costs and recent equipment quotes where possible. It is intended to provide an estimate only, and is not a specific nor minimum/maximum figure. These are total dollar figures and do not reflect any cost allocation.

	One-time	Annual
Equipment Upgrades		
Type 2 US&R Equipment for Squad	\$158,000	
Facility Upgrades		
Fire Station 45 and Fire Station 49 non-allocated replacement cost.	\$5,000,000	
Personnel Upgrades		
4th - Person staffing at Fire Station 49 (completed – personnel in place)		\$334,000
2- Person staffing for rescue squad at Fire Station 45.		\$831,000
24/7 Battalion Chief Staffing		\$230,000
Technical Rescue Training - Initial		
Confined Space Certification, Trench Rescue, Rescue Systems I & II	\$120,000	
Technical Rescue Training - Recurrent		
Recertification and annual skills refreshers	\$40,000	
Total	\$5,278,000	\$1,435,000

In Closing

Although it is impossible to predict every emergency and the complexity of its mitigation, it is the goal of Riverside County Fire Department to be as prepared as possible. This program is intended to increase our preparedness and allow us to respond to and mitigate emergencies associated with the industrial solar plants being developed in the Eastern Riverside County area. The design of this program is to provide a specific plan with quantifiable upgrades to personnel, equipment and training, and account for those mitigating costs in a direct auditable trail to monies spent from any Solar Project developer.

Ultimately it is the intention of the Riverside County Fire Department to provide superior customer service while helping to assure a safe work environment for everyone.