

455 Capitol Mall Suite 350 Sacramento CA 95814 Tel· 916.441.6575 Fax· 916.441.6553

**DOCKET** 

09-AFC-7

**DATE** MAY 12 2010

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California Energy Commission Docket Unit 1516 Ninth Street Sacramento, CA 95814-5512

Subject: PALEN SOLAR I, LLC'S INITIAL COMMENTS ON THE BIOLOGICAL

RESOURCES SECTION OF THE STAFF ASSESSMENT/DRAFT ENVIRONMENTAL IMPACT STATEMENT DOCKET NO. (09-AFC-7)

Enclosed for filing with the California Energy Commission is the original copy of PALEN SOLAR I, LLC'S INITIAL COMMENTS ON THE BIOLOGICAL RESOURCES SECTION OF THE STAFF ASSESSMENT/DRAFT ENVIRONMENTAL IMPACT STATEMENT, for the Palen Solar Power Project (09-AFC-7).

Sincerely,

Marie Mills

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Scott A. Galati
Robert A Gladden
GALATIBLEK LLP
455 Capitol Mall
Suite 350
Sacramento, CA 95814
(916) 441-6575

#### STATE OF CALIFORNIA

Energy Resources
Conservation and Development Commission

In the Matter of:

DOCKET NO. 09-AFC-7

Application for Certification for the PALEN SOLAR POWER PROJECT

PALEN SOLAR I, LLC'S INITIAL COMMENTS ON THE BIOLOGICAL RESOURCES SECTION OF THE STAFF ASSESSMENT/DRAFT ENVIRONMENTAL IMPACT STATEMENT

#### **BIOLOGICAL RESOURCES**

The following summarizes the Applicant's response to the Biological Resources assessment and conditions of certification.

#### Page C.2-24, Stabilized and Partially Stabilized Dunes

The identified acreage of direct dune impacts from the PSPP is 285 acres. There are also indirect impacts that have been identified by CEC staff in the SA that total 1,400 acres. The applicant does not agree with the amount of indirect impacts identified in the SA. However, the applicant does agree that there may be some indirect impacts as a result of impedance to sand transport. The applicant will implement a sand dune replenishment program to reduce indirect impacts to downwind dune habitat. As part of the sand replenishment program, sand would be removed from along the northern fence line where it would accumulate in the drainage ditch or along the northern fence. It would be moved downwind to allow for continued transport. This process would be required irrespective of indirect MFTL impacts to maintain capacity and function in the drainage. It also allows for continued transport of sand downwind. Mitigation would account for the direct impacts to desert tortoise and MFTL habitat due to the sand nourishment program. The total area expected for direct impacts under this dune replenishment program is to be determined. This is further discussed in the response to C.2-26 below.

#### Page C.2-26, Sand Dune Transport System

PSI is in the process of responding to the additional CEC Staff information requests that emerged from the April 16, 2010 Biology and Alternatives Workshop for the PSPP, as these requests were summarized in the April 19, 2019 letter from Alan H. Solomon, CEC Project Manager to Ms. Alice Harron of Solar Millennium, LLC. A primary issue discussed at the Workshop and in Mr. Solomon's letter is potential direct and indirect impacts to sand dunes and Mojave fringe-toed lizards (MFTL). Mr. Solomon's letter requested information on a number of specific topics related to sand dunes/MFTL. PSI is providing these initial comments on the Biological Resources elements of the Staff Assessment/Draft EIS in advance of the May 14 date. As described above, we are not yet able to provide complete information in response to Staff requests concerning the sand dunes/MFTL issues. However, we would like to summarize our position on the overall issue at this time. Our submittal will provide more extensive analysis and documentation to support our position regarding sand dune/MFTL impacts and mitigation of these impacts.

PSI feels that Staff is overstating the extent and severity of the Project's impacts on sand transport. Andrew Collison, the CEC's consultant in his February 18, 2010 report expresses the view that the PSPP's impacts on sand transport corridor volumes will be "closer to 30-40%", whereas Dr. Miles Kenney, PSI's sand transport specialist consultant concludes that the PSPP's impacts on sand transport volumes are likely to be between 10 and 20 %. Dr. Kenney states that the primary reason for the difference in findings relates to data on the predominant wind directions that affect the area in question. Mr. Collison's analysis is based on the assumption the winds from the west are the dominant aeolian force along the sand corridor. However, Dr. Kenney has conducted additional field investigation that provides data indicating that there are also significant winds from a northerly direction that affect the corridor. It appears Staff's position is that since the solar facilities are to the west of the primary transport corridor, the more dominant the winds are from westerly direction, the greater the expected impact of the solar facilities on sand movement would be (Collison/Staff's view). This completely ignores the fact that the primary wind direction and sand come from the north which greatly reduces the overall affect of the project on the sand transport corridor. Along with an appropriate evaluation of the extent of potential impacts, equally critical is the question of how (or even if) Project impacts on aeolian sand transport can be mitigated. PSI's view is that the impacts of the PSPP on sand transport can be mitigated by a properly designed and implemented sand replenishment program. In such a program, sand that builds up on the upwind side of PSPP facilities (which would be the sand whose movement Project facilities are affecting), would be removed by PSI and placed downwind of the project facilities, where sand transport would resume its natural dispersal patterns. There would be no change in the total amount of sand that moves through the transport corridor at present. Transport volumes both upwind and downwind of the facility would be unchanged from current conditions.

PSI feels that a successful sand replenishment program can be devised and implemented. Addressing issues related to wind forces on earthen materials has occurred in various contexts. For example, there have been hundreds of beach sand replenishment projects that have been successfully implemented. Also, the physical mechanisms and analytical tools that apply to aeolian sand transport are very similar to those that apply to issues of protecting and preserving agricultural soils from windblown erosion – an issue that has been prominent in the United States since the "dustbowl" days of the Great Plains in the 1930s. The knowledge and tools for preventing windblown soil erosion are also applicable to the PSPP effort to avoid interfering with natural windblown sand transport processes.

In summary, PSI's view is that the PSPP's impacts on sand transport corridors are not unavoidably significant and unmitigable. Our view is that the scale of the impact is considerably smaller than suggested by Staff, for reasons mentioned above. There is a sufficient base of knowledge and experience in addressing the effects of wind on sand and soils to provide confidence that there are feasible mitigation techniques with a high likelihood of success. We appreciate the potential concern that the mitigation effort itself could create substantial impacts if the scale of the effort required a constant stream of trucks transporting sand. PSI feels that this will not be the case. There very likely would be seasonal variation in the amount of sand replenishment (more replenishment activity in the windiest times of the year such as May/June and less in other times of the year). However, because we feel the data will show that impacts would be less than predicted by Staff, the level of mitigation activity needed also would be smaller and would not itself cause significant impacts.

#### Page C.2-61, Biological Resources Table 5, Summary of Impacts and Mitigation

Table 5, page C.2-61 summarizes impacts and mitigation to biological resources. Comments on the table are as follows:

#### Stabilized and Partially Stabilized Sand Dunes

The applicant does not agree that there are 1,412 acres of indirect impacts to sand dune habitat. Please see responses C.2-24 and C.2-26 above for more information regarding sand transport, dune habitat, and MFTL impacts.

#### Desert Tortoise

The project impacts were updated in a memorandum to Susan Sanders dated February 12, 2009. Impacts to critical habitat are lower than 210 acres (183.4 acres).

#### Mojave Fringe-Toed Lizard

The applicant does not agree that there are 1,412 acres of indirect impacts to sand dune habitat. The applicant also disagrees with the finding that impacts to MFTL are unmitigable. MFTL is a California Species of Concern and BLM sensitive species, but not listed as a federal or state threatened or endangered species or as a Protected Reptile under Fish and Game Code requiring take coverage. Mitigation has been proposed at reasonable ratios to compensate for direct impacts to 1,735 acres of habitat that supports this species. There is additional habitat in the NECO area, including habitat within the Chuckwalla Valley, that has characteristics that would support MFTL, including dune habitat, and that would provide sufficient acreage to mitigate for loss of habitat on the PSPP site. Please see responses C.2-24 and C.2-26 above for more information regarding sand transport, dune habitat, and MFTL impacts.

#### Golden Eagle

The SA suggests that there is loss of foraging habitat; however, this is not yet supported by empirical data. Surveys are still in process. The summary should be changed to reflect that conclusive data is not yet available. In addition, the mitigation summary should be changed to clarify that the mitigation associated with the desert tortoise is sufficient and additional mitigation is not required, should there be a loss of foraging habitat. Table 5 should be revised as follows:

### **Mitigation**: Off-site habitat acquisition and enhancement *for the desert tortoise* (BIO-12) *is sufficient to mitigate potential impacts to the golden eagle*

#### Special-Status Birds & Migratory Birds

Mitigation summary should be changed to clarify that the mitigation associated with the desert tortoise is sufficient and additional mitigation is not required. Table 5 should be revised as follows:

Mitigation: Implement impact avoidance and minimization measures (BIO-6 through BIO-8); pre-construction nest surveys (BIO-15); avian protection plan (BIO-16); and off-site habitat acquisition and enhancement for the desert tortoise (BIO-12) is sufficient to mitigate any impacts to special-status or migratory birds.

#### Desert Kit Fox & American Badger

Mitigation summary should be changed to clarify that the mitigation associated with the desert tortoise is sufficient and additional mitigation is not required. Table 5 should be revised as follows:

**Mitigation**: Implement impact avoidance and minimization measures (**BIO-17**); and off-site habitat acquisition and enhancement for the desert tortoise (**BIO-12**) is sufficient to mitigate any impacts to desert kit fox or American badger.

### Page C.2-62, Biological Resources Table 6, Acreage of Direct and Indirect Impacts to Biological Resources and Recommended Mitigation

The applicant has reviewed staff's proposed impacts and mitigation proposal and as stated above, has proposed an alternative mitigation strategy based on habitat quality. The proposed mitigation based on the Applicant's proposal is provided below for comparison to the Staff's proposal. A discussion on the rationale is provided for Desert Tortoise in the response to Staff's analysis on **Page C.2-73 – 83, Desert Tortoise** below. In addition, acreages have been updated based and will be revised as necessary based on project refinements. Staff proposed impacts and mitigation table is as follows:

## Biological Resources Table 6 Acreage of Direct and Indirect Impacts to Biological Resources and Recommended Mitigation

wiitiyati	OII		
Resource	Acres Impacted	Mitigation Ratio	Recommended Mitigation Acreage
Desert Tortoise Habitat <sup>1</sup>			
Within Critical Habitat	210	5:1	1,050
Outside Critical Habitat	3,690	1:1	3,690
Total Desert Tortoise Mitigation			4,740
Mojave Fringe-toed Lizard – Direct Impacts			
Stabilized and partially stabilized sand dunes – direct impacts <sup>2</sup>	285*	3:1	855*
Non-dune habitats occupied by MTFL (sand fields vegetated with sparse creosote bush scrub) <sup>3</sup>	1,450	1:1	1,450
Mojave Fringe-Toed Lizard – Indirect Impacts <sup>4</sup>	1,412	0.5:1	706
Total MTFL Mitigation			3,011
State Waters - Direct Impacts			
Desert Dry Wash Woodland	141	3:1	423

Unvegetated Ephemeral Dry Wash	162	1:1	162
Total direct impacts to state waters	298		585
State Waters – Indirect Impacts from Changes in			
Hydrology			
Desert Dry Wash Woodland	28	1.5:1	42
Unvegetated Ephemeral Dry Wash	34	0.5:1	17
Total indirect impacts to state waters	62		58
Burrowing Owl Habitat – 2 pairs, 4 individuals,			78
19.5 acres each (per CBOC guidelines)			

Applicant proposed impacts and mitigation table is as follows:

Biological Resources Table 6
Acreage of Direct and Indirect Impacts to Biological Resources and Recommended
Mitigation

		BB*4*	Recommended
Resource	Acres Impacted	Mitigation Ratio	Mitigation Acreage
Desert Tortoise Habitat			31011011
Within Critical Habitat – Moderate Quality	1.2	5:1	6
Within Critical Habitat – Low Quality	183.1	1:1	183.1
Outside Critical Habitat – Moderate Quality	1.0	1:1	1.0
Outside Critical Habitat – Low Quality	3,688.7	0.5:1	1,844.4
Total Desert Tortoise Mitigation			2,034.5
Mojave Fringe-toed Lizard – Direct Impacts			
Stabilized and partially stabilized sand dunes – direct impacts	285*	1:1	285*
Non-dune habitats occupied by MTFL (sand fields	1,450	1:1	1,450
vegetated with sparse creosote bush scrub)	4 440	0	0
Mojave Fringe-Toed Lizard – Indirect Impacts	1,412	0	0
Total MTFL Mitigation			2,305
State Waters – Direct Impacts			
Desert Dry Wash Woodland	135	2:1	270
Unvegetated Ephemeral Dry Wash	162	1:1	162
Total direct impacts to state waters	298		567
State Waters – Indirect Impacts from Changes in Hydrology			
Desert Dry Wash Woodland	28	1.5:1	42
Unvegetated Ephemeral Dry Wash	34	0.5:1	17
Total indirect impacts to state waters	62		58
Burrowing Owl Habitat – 2 pairs, 4 individuals, 6.5 acres each (per CBOC guidelines)			39

#### Page C.2-67, Waters of the State: Impacts and Mitigation

The Staff Assessment states that the channels constructed to reroute flows would be designed and "constructed using native material with 4:1 side slopes." This is not correct. The channels will be designed with 3:1 side slopes to minimize the required area for construction of the channels. Designing with 3:1 side slopes provides the necessary capacity to carry the 100-year storm flows and is still shallow enough to allow for desert tortoise and wildlife movement on the slopes.

### Page C.2-69, Impacts to Sand Transport Corridor and Sand Dune Habitat, Fourth Paragraph

Staff concludes that the impacts to the sand transport corridor and sand dune habitat are unmitigatable, but offers no technical support for that opinion. This is further discussed in the response to C.2-26 above and additional analysis will be provided in a subsequent response.

### Page C.2-69-71, Impacts to Groundwater-Dependent Vegetation from Groundwater Pumping

Staff finds that a 1 foot drop in groundwater table over the life of the project is a significant impact to groundwater dependent plants and therefore requires mitigation in the form of total replacement of water used within the basin. The applicant does not agree with the determination that there will be a significant impact to groundwater dependent vegetation and mitigation should not be required as part of the Conditions of Certification.

The Staff assessment identifies the northern portion of Palen Dry Lake in an area of dissected playa where a population of Mesquite trees as an area of concern that has been mapped. This conclusion is overreaching for the following reasons:

- The population of Mesquite trees is many miles north of the PSPP. The recent groundwater model shows that pumping will not induce a drawdown of more than 0.1 foot in the northern portion of the playa.
- Below Palen Dry Lake, shallow groundwater (<10 feet in depth) is probably present on the northern portion of the lake. Mapping by Steinemann (1989) showed that water is present at depths below 10 feet in the central and southern part of the playa.
- For most Phreatophytes, the depth to groundwater is an important factor and variations of 2 to 6 feet in ground water levels could have adverse affects in root growth as well as survival. Vegetation of this type was not reported by WorleyParsons (2009a) in their assessment of the Palen Dry Lake. As noted above, no such drawdown variation is predicted by the model.
- In comparison, mesquite, which are present in the dissected area of the playa are a deep rooted plant known to send roots 50 feet or more in search of water. This effectively buffers the plant to slight variations in groundwater levels, particularly in the case of adult trees that are established (Pers. Communication, Jonathan Campbell, February 2, 2010).
- Well data from well 5S/17E-6C01 indicate stable groundwater conditions on the north side of Palen Dry Lake. The water level history for this well has spanned several years including periods of higher pumping in support of agriculture both in the area of Desert Center and pumping at Cocopah Farms west of the PSPP. The hydrograph does not reflect episodic changes to periods of short term pumping having a character that appears to reflect a regional response to changes in basin wide pumping. Similarly, it would be anticipated that the pumping at the PSPP would not affect the water levels this far north of the site.

Given the distance to the mesquite tress, their deep rooted character, absence of other vegetation on the northern margin of the playa, and the model prediction showing that the PSPP will not induce drawdown of 1 foot or more in the areas of the trees, identifying potential significant impacts to groundwater dependent vegetation that would require mitigation is not justified.

Campbell, Jonathan, Personal Communications, Dr. Campbell, Campbell and Associates, Los Angles California. February 3, 2010.

Steinemann, A.C., 1989, Evaluation of Nonpotable Groundwater in the Desert Area of Southeastern California for Powerplant Cooling. U.S., Geological Survey Water Supply Paper 2343. 44 pages.

WorleyParsons, 2009b, Technical Memorandum – Groundwater Resources Cumulative Impacts Analysis for Genesis Solar Power Project, Riverside County, California. December 30.

#### Page C.2-73 – 83, Desert Tortoise

As a result of field surveys, and as confirmed by the USGS model, the Palen site has been classified as consisting of low quality desert tortoise habitat with moderate quality habitat located south of I-10. No desert tortoises were observed within the project disturbance area during protocol surveys. The closest tortoise was located south of the substation, south of I-10. In addition, limited active sign was observed on the project site.

The CEC states on page C.2-75 that the critical habitat is occupied habitat and on page C.2-77 that there will be a "loss of approximately 3.899 acres of occupied habitat." Protocol surveys show limited active sign and no desert tortoises were observed within the Project Disturbance Area. Protocol surveys conducted to date did not present evidence supporting an occupied status for the site. The Palen plant site north of I-10 should be considered unoccupied not just because no desert tortoise were observed but also because surveys did not identify sign that tortoises were actively using the site (i.e., burrows that were definitely tortoise, the presence of tortoise scat, or a carcass as opposed to bone fragments, which would suggest that tortoises were using the site.) The tortoise sign found was either bone fragments likely washed down from the mountains, or burrows that were not definitively tortoise.

In addition, although there is habitat identified as critical habitat, the habitat is not characterized by the necessary Primary Constituent Elements (PCEs) that define critical habitat. It lacks good forage (quantity and quality) and connectivity and is also characterized by human disturbances. The NECO Plan, in designating a Chuckwalla DWMA south of I-10, explicitly recognized the better wildlife habitat quality present south of the highway. The designated DWMA boundary also recognized the highway as a logical and functional boundary. Along most of their northern perimeters, the desert tortoise critical habitat boundary and the DWMA boundary largely coincide south of I-10. In the extreme southwest portion of the PSPP site, however, a small area of critical habitat is present north of the interstate. This presence, however, is due to the utility of designating critical habitat boundaries along USGS section line locations, rather than any underlying habitat characteristics.

According to the NECO, compensation for impacts to lands within the plan area may be achieved through lands or equivalent fees. Specific requirements are outlined in Section 4 of Appendix D of the Plan, Desert Tortoise Mitigation Measures, which are also cited on Page C.2-58 of the Staff Assessment: "A mitigation fee based on the amount of acreage disturbed shall be required of proponents of new development. Within DWMAs (Category I) the lands delivered or equivalent fee shall be an amount that achieves a ratio of 5 acres of compensation land for every 1 acre disturbed. Outside DWMAs (Category III) the lands delivered or equivalent fee shall be an amount that achieves a ratio of one 1 acre of compensation land for every 1 acre disturbed. Funds may be expended as approved by the Management Oversight Group in 1991. Lands will be acquired or enhanced within the same recovery unit as the disturbance. CDFG may require additional fees for management of lands and for rehabilitation of lands." These ratios are not necessarily inflexible based on further evaluation of the NECO plan. In the Constraints and Development section of Appendix B (Standards and Guidelines) of the Plan, it states: "In applying the standards and any applicable guidelines, BLM will emphasize a balanced approach to resource management, taking into account such factors as context and intensity of impacts; the opportunities for reclamation, restoration, or rehabilitation; and possible mitigation, including off-site mitigation." The context of impacts presumably includes quality of habitat impacted, allowing BLM the flexibility to negotiate mitigation ratios particularly if higher value mitigation lands are proposed.

The agencies have requested habitat compensation at a 1:1 ratio outside of critical habitat and a 5:1 ratio within critical habitat regardless of the quality of habitat impacted and quality of habitat used for mitigation for consistency with the NECO Plan. The Project Applicant suggests an alternative approach that is consistent with the NECO Plan which varies the level of compensation ratios based on the habitat quality present onsite and based on the objective of mitigating with higher quality lands.

As stated previously, the NECO plan varies the compensation ratio for habitat in a DWMA or Category I land versus habitat outside a DWMA or Category III land. The land categories referenced in the NECO Plan are derived from the BLM Range-wide Plan prepared for DT (BLM 1988). There are three categories (Category I, II, and III) described in the BLM plan and habitat is classified into a category according to four criteria: importance of the habitat to maintaining viable populations; resolvability of conflicts; DT density, and population status. Category I is the highest value habitat and Category III is the lowest value habitat. The BLM Category III lands are characterized by the following: habitat not essential to maintenance of viable populations; most conflicts not resolvable; low to medium density not contiguous with high density, and population stable or decreasing.

DT habitat present in the Project disturbance area is considered moderate south of I-10 and to low quality north of I-10. This habitat quality ranking is consistent with an evaluation of DT habitat in the region based a recent USGS habitat model (Nussear et al. 2009). Moderate quality habitat (27.4 acres) present onsite meets the criteria of Category III lands. Low quality habitat (3,871.6 acres) present onsite is considered unoccupied due to the lack of substantive recent sign and the absence of DT. Low quality habitat present onsite does not meet Category III (lowest value habitat) criteria and thus would not be classified in any of the BLM categories and would not require mitigation in accordance with the NECO plan. Additionally, critical habitat present in the Project disturbance area is outside the DWMA boundaries.

Due to the quality of habitat, lack of substantive recent sign, and the absence of desert tortoise, and the objective of mitigating with higher quality lands, mitigation in the low quality habitat was proposed at a ratio of 0.5:1 as opposed to the 1:1 as identified in the NECO plan for impacts outside of critical habitat and 1:1 as opposed to 5:1 for low quality habitat within critical habitat boundaries. This ratio was proposed in consideration of resource value, consistency with BLM Categories for DT lands, and after carefully reviewing the NECO plan and associated appendices.

#### Page C.2-83, Desert Tortoise Connectivity

Staff has concluded that the PSPP site may be important for desert tortoise movement between higher quality habitats available in the Palen Mountains to the northeast and the Chuckwalla Mountains to the south.

Additional analysis regarding wildlife habitat connectivity has been conducted as a result of a data request from the BLM. All 24 undercrossings along approximate 30-mile segment of the I-10 between Desert Center and Wiley's Well were surveyed for their size, configuration, ability to facilitate wildlife movement, and for evidence of current wildlife movement. All but two of the crossings were actual bridges. These bridge undercrossings were sufficiently large for use by animals of any size. All undercrossings were sufficiently large to facilitate use by desert tortoise. While considerable evidence of wildlife movement was noted, there was no sign of use by desert tortoise.

It was determined that there are many points along I-10 suitable for wildlife undercrossing, including by desert tortoise. The proposed PSPP would place a barrier a short distance north of two of these crossings. Examining these particular undercrossings in a regional context, however, suggests that they are less important than other available undercrossings to the east and west of the PSPP. As is discussed elsewhere, the PSPP site is located on the margins of a sand transport zone. To the north of the site sand dunes occur with increasing frequency as a result of the northwest to southeast orientation of the sand transport system. Further north is the Palen Dry Lake which is inhospitable for tortoises. While desert tortoises will cross desert pavement and dunes, areas of heavy dune concentration and areas consisting purely of dunes offer little in the way forage and make burrowing difficult. These areas are likely not a regular part of tortoises home ranges.

The need to retain routes providing opportunities for movement of tortoises between populations south of I-10 and areas further north is understood. This movement, ultimately providing connection and exchange of genetic material between desert tortoise populations, would likely occur, assuming suitable climatic conditions, through the combination of juvenile dispersal and gradual northerly and/or southerly expansion of the home ranges of succeeding generations of tortoises. The applicant argues, however, that the placement of the PSPP does not block areas important for this home range expansion. Tortoises moving north from south of I-10 would confront an obstacle in the form of dunes and the Palen Dry Lake. The same features provide a barrier to tortoises moving south from northern portions of the Chuckwalla Valley. Tortoises seeking to establish new home ranges in this region would be forced into the bajada to the west of the proposed PSPP or to areas at the foot of the Palen Mountains to the east of the dunes. The placement of the PSPP, surrounded by tortoise fencing, simply places a more definitive barrier further south in an area that likely doesn't function as an effective desert tortoise movement corridor due to physiographic features. Additionally, the shortest distance between higher value habitat in the Palen and Chuckwalla Mountains is to the east of the Project disturbance area. The

shortest distance between the Chuckwalla Mountains to higher value habitat likely near the Eagle and Coxcomb Mountains is west of the Project disturbance area.

The applicant contends that the placement of the PSPP north of I-10 will not significantly impact desert tortoise movement and population connectivity. Such movement, and the resultant connectivity, would occur via routes to the east and west of the PSPP due to the presence of extensive dune systems and Palen Dry Lake. Ample undercrossings (more than 20), completely unaffected by the proposed PSPP, exist to facilitate this movement across I-10. As an additional measure to facilitate desert tortoise movement, the applicant agrees to install a concrete box culvert under the access road leading to the site from the Corn Springs interchange. This will prevent tortoises from becoming enclosed in an area bounded by the highway and the PSPP tortoise fence.

#### Page C.2-83, Mojave Fringe Toad Lizard,

The applicant does not agree that "eliminating the desert washes throughout the site and replacing them with engineered channels" will affect MFTL. According to Dr. Miles Keeney, only a small amount of source sand is a result of water transport, which most likely occurred in the Pleiocene, and this function has ceased.

#### Page C.2-84, Mojave Fringe Toad Lizard

In the third paragraph on page C.2-84, staff concludes that there will be a cumulative loss of 13 percent of the MFTL habitat in the Chuckwalla Valley from all projects and that the PSPP accounts for 8.8 percent of this cumulative impact. The presentation of the data is misleading. The PSPP accounts for 8.8 percent of the total 13 percent, not 8.8 of the 13 percent, equaling 1.1 percent. Additionally, in Table 14 on page C.2-127, the Staff Assessment identifies 99,657 acres of habitat in the NECO for the Chuckwalla population of MFTL, of which 1,136 acres are in the PSPP area. This would result in a conclusion that 1.1 percent of total MFTL habitat in the Chuckwalla Valley is being impacted by the PSPP. The total cumulative impacts are 12,845 acres and thus 8.8% of those impacts are from PSPP. The applicant does not believe that 8.8 percent of cumulative impacts or 1.1 percent of total habitat is a significant impact.

In addition, the SA suggests that the MFTL present in the PSPP area represent an important gene pool. The applicant believes this discussion is speculatory at best and should not be used to make decisions regarding the significance of impacts associated with the project. The SA references a single paper on the "conservation genetics, evolution and distinct populations segments of MFTL" (Murphy et. al. 2007). The paper defined two "distinct population segments," neither of which included the population of MFTL in the chuckwalla valley. The comment in the SA states that the chuckwalla population "may represent an important gene pool" and is based on a pers. comm. from Cameron Barrows from the Center for Conservation Biology's Desert Studies Initiative, but there is not a peer reviewed journal to substantiate it.

#### Page C.2-85, Couch's Spadefoot Toad, Second Paragraph

Staff's inclusion of the discussion regarding Couch's spadefoot toad is speculative in nature and is not based on biological evidence. The PSPP is near the western most range of the species but is not within the range of the species identified by the NECO. No habitat has been identified onsite that would support the Couch's spadefoot toad and discussion of potential impacts and required mitigation is inappropriate. This section should be rewritten. Suggested edits are provided below.

"While the PSPP is within the range of the Couch's spadefoot toad; no evidence that the species exists on the site was observed. The Palen site was assessed for evidence of ponding that could support breeding of this species (ponding that would last about nine days) and these areas were not observed. Therefore, the PSPP would not impact this species or its habitat. No further analysis is required."

#### Page C.2-88 (and C.2-129), Golden Eagles

The applicant is reserving the right to provide additional comment regarding the impact analysis and Staff conclusions regarding take of habitat for the golden eagle. Surveys will be conducted and a more specific summary of potential impacts from the PSPP will be prepared based on the analysis.

#### Page C.2-91 – 92, Construction Noise

Staff concludes that occasional pile driving or steam blows would affect Bighorn Sheep that are located approximately 2.5 miles northeast of the proposed PSPP. Staff concludes that the steam blows, generating a noise of 130 dB at a distance of 100 feet, would attenuate to 88 dB at 2.5 miles from the project site.

The applicant disagrees with this analysis. NOISE-6 already conditions the project to a noise level of 89 dB at 100 feet from the source. The source is located approximately 3,600 feet from the property line in the direction of concern. The calculation in the SA/DEIS is therefore incorrect and the noise level will be less than 89 dB at the property line. This noise level would not impact big horn sheep populations 2.5 miles from the project site and not mitigation or restrictions on the timing of steam blows should be required for the PSPP.

#### Page C.2-94, Special-status Plant Species

The end of second paragraph reads: "The significant indirect effects of obstructed wind-sand transport to the maintenance and sustainability of Harwood's milk-vetch dune habitat downwind of the Project can only be mitigated through adoption of the Reduced Acreage Alternative..." This is an inaccurate assessment of potential impacts and require mitigation. Only 3 individual Harwood's milk-vetch plants were detected in the Project Disturbance Area. In 2009, all plants were located north of the PSPP. There are no known populations or individuals identified east or southeast of the site within the Biological Resources Survey Area that would be indirectly impacted by the PSPP due to impacts to sand transport across the site. A project is not required to mitigate to any potential future impacts to future conditions that do not exist currently. Since no Harwood's milk-vetch occur in the potentially impacted sand transport corridor within the required buffer, no indirect impacts would occur and no mitigation for potential indirect impacts would be required. In addition, the project is already required to mitigate for loss of dune habitat. Therefore, the mitigation should not be considered limited to the Reduced Acreage Alternative.

#### Page C.2-100, Third Paragraph, Decommissioning and Reclamation Plan

Staff states in this paragraph that the Decommissioning and Reclamation Plan must "explicitly state that the goals of reclamation include restoration of the site's topography and hydrology to a relatively natural condition and restoration of native plant communities." However, this may not be the case. BLM, as the ultimate manager of the land, may elect in the future that it may want the site decommissioned or reclaimed to a different land use (continued utility-scale energy generation, OHV, other industrial use, use of some of the buildings, etc.) as opposed to restoration. Since the project has provided full habitat compensation to mitigate for all project disturbance and that habitat compensation mitigates for the life of the project and beyond, there is no environmental reason to restore the land to a natural state unless BLM, as the land manager requests restoration.

Under the provisions of the BLM ROW lease, PSI expects to be required to provide the BLM a conceptual reclamation plan prior to start of construction and a detailed reclamation plan years later as the PSPP approaches the end of its operational life. PSI requests that the objectives and detailed content of the reclamation plan for the PSPP site be determined at that future time when are development and the BLM's long-term interests and objectives are better defined than they can be at present. We have modified the conditions of certification to reflect this view.

#### Page C.2-125, Mohave Fringe-Toed Lizard

The applicant disagrees with Staff's presentation of cumulative impacts for the MFTL. See response above to page C.2- 83 and 84.

#### Page C.2-149, Verification to Condition of Certification BIO-1

The second paragraph of the Verification to Condition BIO-1 requires submittal of the approved Designated Biologist within 7 days of receiving the Energy Commission Decision. PSI requests this be modified consistent with other conditions that measure the verification timeline "prior to" an activity such as mobilization or construction. In addition, language has been added to the verification for clarification. PSI requests the Verification be modified as follows.

The Project owner shall submit <u>to</u> the CPM and Authorized Officer <u>the</u> approved Designated Biologist *no less than 30 days prior to construction* within 7 days of receiving the Energy Commission Decision. No construction-related ground disturbance, grading, boring, or trenching shall commence until an approved Designated Biologist is available to be on site.

#### Page C.2-152, Verification to Condition of Certification BIO-6

The first paragraph of the Verification to this Condition of Certification requires submittal of the final WEAP within 7 days of docketing of the CEC's Final Decision or BLM's ROD. PSI requests this be modified consistent with other conditions that measure the verification timeline "prior to" an activity such as mobilization or construction. We request the Verification be modified as follows.

Verification: *No less than 30 days prior to construction* Within 7 days of docketing of the Energy Commission's Final Decision, or publication of BLM's Record of Decision/ROW Issuance, whichever comes first, the Project owner shall provide to BLM's Authorized Officer and the CPM a copy of the final WEAP and all supporting written materials and electronic media prepared or reviewed by the Designated Biologist and a resume of the person(s) administering the program.

#### Page C.2-155, Verification to Condition of Certification BIO-7

Revisions to the disturbance area calculations are currently in progress based on updates to the alignment of linear project features. Updated habitat impact and disturbance area calculations will be provided to the CEC subsequent to completion of biological resource surveys currently being conducted this spring for the transmission line corridor, Red Bluff substation, and additional Project Disturbance Areas not previously identified in prior surveys to date. Therefore, impacts to biological resources will be revised again and reported to the CEC in separate reports forthcoming later this spring. Because the Project Disturbance Area may be revised from that described in the SA/DEIS, PSI requests that the third paragraph of this verification be modified as shown below.

In addition, the third paragraph of the Verification to this Condition of Certification requires verification that the extent of construction disturbance does not exceed that described in the Staff Assessment by submitting aerial photographs before and after completion. Aerials can be used to verify boundaries, but they are difficult to use for acreage calculations to 10th's of an acre. We suggest using whole acreage numbers in making this comparison. Revisions to the disturbance area calculations are currently in progress based on updates to the alignment of linear project features.

#### Suggested Edits:

...To verify that the extent of the construction disturbance does not exceed that described in this analysis, these Biological Resources Conditions of Certification, the Project owner shall submit aerial photographs, at an approved scale, taken before and after construction to the CPM and BLM's Authorized Officer.

...The project owner shall also provide a final accounting of the acreages of vegetation communities/cover types present before and after construction. **Construction acreages shall be rounded to the nearest acre.** 

#### Pages C.2-155 to 159, Condition of Certification BIO-8

Point No. 9 in Condition of Certification BIO-8 requires limitations on the construction period for the PSPP. The applicant has requested removal of this condition given the proposed noise attenuation efforts and associated anticipated noise levels at sensitive receptor locations. Noise is not expected to be above 60 dB (see Response to page C.2-91-92 of the SA above).

The second paragraph of the Verification to this Condition of Certification requires submittal of a Revegetation Plan no less than 30 days after the CEC issues the License or BLM issues the ROW. PSI requests this be modified consistent with other conditions that measure the verification timeline "prior to" an activity such as mobilization or construction. We request the Verification be modified as follows.

No less than 30 days *prior to construction* following the publication of the Energy Commission License Decision or the Record of Decision/ROW Issuance, whichever comes first, the project owner shall submit to the CPM and BLM's Authorized Officer a final agency-approved Revegetation Plan that has been reviewed and approved by BLM's Authorized Officer and the CPM. All modifications to the Revegetation Plan shall be made only after approval from BLM's Authorized Officer and the CPM.

#### Pages C.2-159-162, Condition of Certification BIO-9

This condition requires tortoise fencing along both sides of I-10, presumably to address the connectivity issue. PSI has agreed to install a culvert under the access road in the southwest part of the site to facilitate movement of the desert tortoise safely across that area; however, PSI has not agreed to fence I-10. See response to C.2-83 regarding desert tortoise. PSI will only agree to this condition if the fencing constitutes mitigation for impacts to the desert tortoise connectivity issue.

The USFWS' 2009 Desert Tortoise Field Manual (Chapter 6 – Clearance Survey Protocol for the Desert Tortoise – Mojave Population) stipulates protocol for clearance surveys for "occupied desert tortoise habitat" (emphasis added). Please see discussion above in response to C.2-73 – 83. Protocol surveys conducted to date did not present evidence that support an occupied status for the PSPP disturbance area. Therefore, it should be feasible to conduct clearance surveys for unoccupied desert tortoise habitat throughout the year. PSI requests that the language of Condition BIO-9 be revised according to the suggested edits below.

This condition requires tortoise exclusion fencing to be included in the permanent security fencing for the plant site and allows temporary tortoise exclusion fencing for linear features. In order to facilitate construction and meeting the ARRA funding start of construction deadline, it would be helpful to be allowed to install temporary exclusion fencing around some portion of the plant site so that clearance surveys and construction

could begin within a subset of the site. In addition, transect surveys over a 90-foot width can be excessive depending upon the area of disturbance and PSI is requesting flexibility based on impact area for surveys prior to exclusionary fencing installation. Therefore PSI recommends the following modification to the proposed condition.

- 2. Desert Tortoise Exclusion Fence Installation. To avoid impacts to desert tortoises, permanent desert tortoise exclusion fencing shall be installed along the permanent perimeter security fence and temporarily installed along the utility corridors linear features or around any subset of the plant site where construction would be localized. The proposed alignments for the permanent perimeter fence and alignments of temporary fencing along linear features or any subset of the plant site where construction would be localized utility rights-of-way fencing shall be flagged and surveyed within 24 hours prior to the initiation of fence construction. Clearance surveys of the perimeter fence alignment and the alignment of any temporary fencing along linear features or around any subset of the plant site where construction would be localized and utility rights-of-way alignments shall be conducted by the Designated Biologist(s) using techniques outlined in the USFWS' 2009 Desert Tortoise Field Manual. Aand may be conducted in any season with USFWS and CDFG approval. Biological Monitors may assist the Designated Biologist under his or her supervision. These fence clearance surveys shall provide 100% coverage of all areas to be disturbed and an additional transect along both sides of the fence line. *Disturbance associated* with fence construction shall not exceed 30 feet on either side of the proposed fence alignment. Prior to the surveys the project owner shall provide to the CPM. CDFG and USFWS a figure clearly depicting the limits of construction disturbance for the proposed fence installation. The fence line survey area shall be 90 feet wide centered on the fence alignment. Where construction disturbance for fence line installation can be limited to 15 feet on either side of the fence line, this fence line survey area may be reduced to an area approximately 60 feet wide centered on the fence alignment. This fence line transect shall cover an area approximately 90 feet wide centered on the fence alignment. Transects shall be no greater than 15 feet apart. All desert tortoise burrows, and burrows constructed by other species that might be used by desert tortoises, shall be examined to assess occupancy of each burrow by desert tortoises and handled in accordance with the USFWS' 2009 Desert Tortoise Field Manual. Any desert tortoise located during fence clearance surveys shall be handled by the Designated Biologist(s) in accordance with the USFWS' 2009 Desert Tortoise Field Manual.
  - a. Timing, Supervision of Fence Installation. The exclusion fencing shall be installed *in an area* prior to the onset of site clearing and grubbing *in that area*. The fence installation shall be supervised by the Designated Biologist and monitored by the Biological Monitors to ensure the safety of any tortoise present.

construction of the permanent perimeter security fence and the attached tortoise exclusion fence, the permanently fenced power plant site shall be cleared of tortoises by the Designated Biologist, who may be assisted by the Biological Monitors. *Portions of the power plant* site may be fenced with temporary tortoise exclusion fence to facilitate construction of the power plant site in stages and in such cases the area within the temporary tortoise exclusion fence shall be cleared of tortoises. Clearance surveys shall be conducted in accordance with the USFWS' 2009 Desert Tortoise Field Manual (Chapter 6 – Clearance Survey Protocol for the Desert Tortoise – Mojave Population) and shall consist of two surveys covering 100% the project area by walking transects no more than 15-feet apart. If a desert tortoise is located on the second survey, a third survey shall be conducted. Each separate survey shall be walked in a different direction to allow opposing angles of observation. Clearance surveys of the power plant site are encouraged to may only be conducted when tortoises are most active (April through May or September through October). Clearance surveys of the power plant site that contain unoccupied desert tortoise habitat (i.e. the main plant site disturbance area) may be conducted throughout the year. Clearance surveys of the power plant site that contain occupied desert tortoise habitat may only be conducted when tortoises are most active. Surveys outside of these time periods in occupied desert tortoise habitat require approval (via e-mail or authorization *letter)* by USFWS and CDFG. Any tortoise located during clearance surveys of the power plant site shall be relocated and monitored in accordance with the Desert Tortoise Relocation/Translocation Plan.

3. Desert Tortoise Clearance Surveys within the Plant Site. Following

#### Page C.2-163, Verification to Condition of Certification BIO-10

The Verification to this Condition of Certification requires submittal of a Desert Tortoise Relocation/Translocation Plan no less than 30 days after the CEC issues the License or BLM issues the ROW. PSI requests this be modified consistent with other conditions that measure the verification timeline "prior to" an activity such as mobilization or construction. We request the Verification be modified as follows:

Verification: Within 7 days of docketing of the Energy Commission License Final Decision or publication of BLM's Record of Decision/ROW Issuance, whichever comes first, Thirty days (30) prior to site mobilization, the Project owner shall provide BLM's Authorized Officer and the CPM with the final version of a Desert Tortoise Relocation/Translocation Plan that has been reviewed and approved by BLM's Authorized Office and the CPM in consultation with USFWS and CDFG. All modifications to the approved Plan shall be made only after approval by BLM's Authorized Officer and the CPM, in consultation with USFWS and CDFG.

#### Page C.2-163 - 164, Condition of Certification BIO-11

This condition of certification includes a contractual "hold harmless" clause which should not be imposed on an applicant as a regulatory mandate and therefore should be removed from a Condition of Certification.

#### Pages C.2-165-169, Condition of Certification BIO-12

Condition of Certification BIO-12 provides the framework and criteria for habitat compensation and land acquisition. PSI believes that funding of programs in lieu of strict land acquisition could provide a great benefit to the Desert Tortoise conservation and discussed such an approach in its mitigation proposals in response to Staff data requests. We understand that CDFG is considering implementing a "in lieu fee" program and advanced mitigation strategies intended for renewable energy projects seeking ARRA funding pursuant to new authorizing legislation. While this fee is voluntary and the amount is unknown at this time, PSI requests that the Staff revise this condition to allow flexibility in mitigation strategies beyond mere land acquisition. PSI would like to explore alternative mitigation strategies such as those outlined in our mitigation proposal in the upcoming Staff Assessment Workshop. The discussion in paragraph 2 on Page C.2-77 of the Staff Assessment states: "staff has concluded that mitigation at a 5:1 ratio (critical habitat) and at a 1:1 ratio (outside critical habitat) through land acquisitions or an assessed financial contribution based on the final construction footprint would mitigate for this significant habitat loss within the Project Disturbance Area." The Staff Assessment cites the Northern and Eastern Colorado Desert Coordinated Management Plan (NECO) as the guidance used to determine adequate compensatory mitigation for impacts to desert tortoise habitat.

According to the NECO, compensation for impacts to lands within the plan area may be achieved through lands or equivalent fees. Specific requirements are outlined in Section 4 of Appendix D of the Plan, Desert Tortoise Mitigation Measures, which are also cited on Page C.2-58 of the Staff Assessment: "A mitigation fee based on the amount of acreage disturbed shall be required of proponents of new development. Within DWMAs (Category I) the lands delivered or equivalent fee shall be an amount that achieves a ratio of 5 acres of compensation land for every 1 acre disturbed. Outside DWMAs (Category III) the lands delivered or equivalent fee shall be an amount that achieves a ratio of one 1 acre of compensation land for every 1 acre disturbed. Funds may be expended as approved by the Management Oversight Group in 1991. Lands will be acquired or enhanced within the same recovery unit as the disturbance. CDFG may require additional fees for management of lands and for rehabilitation of lands."

As stated above, these ratios are not necessarily inflexible based on further evaluation of the NECO plan, and mitigation ratios were proposed by the Project based on resource values for the PSPP.

A fee equivalent compensation option is clearly supported by the NECO plan and it seemed to be the intention of Staff to include that flexibility in this compensation condition (BIO-12) based on the statement identified above on Page C.2-77. Those dollars can be used in furtherance of any of the current or developing efforts summarized in The Summary of Desert Tortoise Recovery Actions Northern Colorado Recovery Unit. These actions include securing habitat within desert wildlife management areas, rehabilitation or closure of roads within DWMAs, removal of wild horses and burros, cleanup of illegal dumps, fencing of roads, providing movement corridors under roads, and desert revegetation projects. Therefore, it is reasonable that based on these provisions of the

NECO, compensation should be a combination of lands and equivalent fees, the ratio of compensation lands outside DWMAs can be negotiated as a function of the context of the impacts and mitigation lands, and the fee-based compensation can be used to fund restoration and enhancement efforts conducted as a part of Desert Tortoise Recovery Actions under way in the Northern Colorado Recovery Unit.

PSI also requests that this condition be revised to allow the mitigation to more closely match the timing of construction. We have revised the condition for Staff's consideration in a manner to allow funding and acquisition to be independently tied to timing of construction of each power plant unit.

To fully mitigate for habitat loss and potential take of desert tortoise, the Project owner shall provide compensatory mitigation at a 1:1 ratio in accordance with Applicant Proposed Mitigation - Table 6, which may include compensation lands purchased in fee or in easement, equivalent fees, or a combination thereof, for impacts to 3,690 acres or the area disturbed by the final Project footprint, and at a 5:1 ratio for acres or the area disturbed by the final Project footprint, within the Chuckwalla Desert Tortoise Critical Habitat Unit.

The timing of the mitigation shall correspond with the timing of the site disturbance activities using the following method.

- 1. The project owner shall prepare and submit a construction phasing plan to the CPM for review and approval that will identify specific areas that will be disturbed for each phase of construction.
- 2. Construction activities cannot occur until the CPM approves and authorizes construction for each phase identified in the construction phasing plan.
- 3. Within 18 months after construction activities commence for any phase identified in the construction phasing plan, the project owner shall provide the mitigation commensurate with the disturbance area associated with each approved phase of construction.

If compensation lands are acquired in fee or in easement, the The requirements for acquisition of 4,737 acres of compensation lands shall include the following:

- Selection Criteria for Compensation Lands. The compensation lands selected for acquisition in fee or in easement shall:
  - a. be within the Colorado Desert Recovery Unit, with potential to contribute to desert tortoise habitat connectivity and build linkages between desert tortoise designated critical habitat, known populations of desert tortoise, and/or other preserve lands;

- b. provide habitat for desert tortoise with capacity to regenerate naturally when disturbances are removed;
- c. to the extent practicable be prioritized near larger blocks of lands that are either already protected or planned for protection, or which could feasibly be protected long-term by a public resource agency or a non-governmental organization dedicated to habitat preservation;
- d. to the extent practicable be connected to lands currently occupied by desert tortoise, ideally with populations that are stable, recovering, or likely to recover;
- e. not have a history of intensive recreational use or other disturbance that is of an extent that does not have the capacity to regenerate naturally when disturbances are removed or might make habitat recovery and restoration infeasible; not be characterized by high densities of invasive species, either on or immediately adjacent to the parcels under consideration, that might jeopardize habitat recovery and restoration; and
- f. not be characterized by high densities of invasive species, either on or immediately adjacent to the parcels under consideration, that might jeopardize habitat recovery and restoration; and
- g. not contain hazardous wastes that cannot be removed to the extent that the site is suitable for habitat.
- 2. Review and Approval of Compensation Lands/Equivalent Fee Program Prior to Acquisition. A minimum of three months prior to acquisition (through purchase or easement) of the property or implementing/participating in the equivalent fee **program**, the Project owner shall submit a formal acquisition proposal to the CPM, CDFG, USFWS and BLM describing the parcel(s) intended for purchase and/or the in lieu fee or species recovery programs to be funded<sup>1</sup>. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands for desert tortoise in relation to the criteria listed above and/or the contribution of the program or fund to the recovery of the species as well as documentation of the proposed compensation equivalency. Approval from CDFG and the CPM, in consultation with BLM and the USFWS, shall be required for acquisition of all parcels comprising the compensation lands 4,737 acres and/or

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<sup>&</sup>lt;sup>1</sup> The mitigation programs include potential BLM lands as defined by the REAT Agencies. REAT Agencies have proposed mechanisms such as deed restrictions, conservation easements, or right-of-way exclusion areas that would provide permanent protection for acquired mitigation lands under BLM management.

### implementing/participating in the equivalent fee program.

- a. Mitigation Security: The Project owner shall provide financial assurances to the CPM and CDFG with copies of the document(s) to BLM and the USFWS, to guarantee that an adequate level of funding is available to implement the mitigation measures described in this condition, including assurances per phase as described above. These funds shall be used solely for implementation of the measures associated with the Project. Financial assurance can be provided to the CPM and CDFG in the form of an irrevocable letter of credit, a pledged savings account or another form of security (—Security||) prior to initiating grounddisturbing Project activities. Prior to submittal to the CPM, the Security shall be approved by the CPM and BLM's Authorized Officer, in consultation with CDFG and the USFWS, to ensure funding. As of the publication of the SA/DEIS, this amount is \$10,800,816. The Security requirement would be \$ \$8,603,352 if the Reconfigured Alternative were constructed or \$5,042,448 for the Reduced Acreage Alternative. This Security amount was calculated as follows and may be revised based on land costs or the estimated costs of enhancement and endowment (see subsection C.2.4.2, Desert Tortoise, for a discussion of the assumptions used in calculating the Security, which are based on an estimate of \$2,280 per acre to fund acquisition, enhancement, and longterm management). The final amount due will be determined by the PAR analysis conducted pursuant to this condition.
- 3. Compensation Lands Acquisition Conditions: The Project owner shall comply with the following conditions relating to acquisition of the compensation lands after the CPM and BLM's Authorized Officer, in consultation with CDFG and the USFWS, have approved the proposed compensation lands and received Security as applicable and as described above.
  - a. Preliminary Report: The Project owner, or approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary documents for the proposed *compensation lands*4,737 acres. All documents conveying or conserving compensation lands and all conditions of title/easement are subject to a field review and approval by the CPM and BLM's Authorized Officer, in consultation with CDFG and the USFWS, California Department of General Services

- and, if applicable, the Fish and Game Commission and/or the Wildlife Conservation Board.
- b. Title/Conveyance: The Project owner shall transfer fee title or a conservation easement to the 4,737 acres of compensation lands to CDFG under terms approved by the CPM and CDFG. Alternatively, a non-profit organization qualified to manage compensation lands (pursuant to California Government Code section 65965) and approved by CDFG and the CPM may hold fee title or a conservation easement over the habitat mitigation lands. If the approved non-profit organization holds title, a conservation easement shall be recorded in favor of CDFG in a form approved by CDFG. If the approved non-profit holds a conservation easement, CDFG shall be named a third party beneficiary. If a Security is provided, the Project owner or an approved third party shall complete the proposed compensation lands acquisition within 18 months of the start of Project ground-disturbing activities.
- c. Initial Habitat Improvement Fund. The Project owner shall fund the initial protection and habitat improvement of the *compensation lands* 4,737 acres. Alternatively, a non-profit organization may hold the habitat improvement funds if they are qualified to manage the compensation lands (pursuant to California Government Code section 65965) and if they meet the approval of CDFG and the CPM. If CDFG takes fee title to the compensation lands, the habitat improvement fund must go to CDFG. Conduct a Property Analysis Record. Upon identification of the mitigation lands the property owner shall conduct a Property Analysis Record (PAR) or PAR-like analysis to establish the appropriate endowment to fund the in-perpetuity management of the acquired mitigation lands.
- d. Long-term Management Endowment Fund. Prior to ground-disturbing Project activities, Within 18 months of ground disturbing activities for each phase of construction identified in the construction phasing plan as approved by the **CPM**, the Project owner shall provide to CDFG a nonwasting capital endowment in the amount determined through the Property Analysis Record (PAR) or PARlike analysis that would be conducted for the compensation lands 4,737 acres. Alternatively, a non-profit organization may hold the endowment fees if they are qualified to manage the compensation lands (pursuant to California Government Code section 65965) and if they meet the approval of CDFG and the CPM. If CDFG takes fee title to the compensation lands, the endowment must go to

- CDFG, where it would be held in the special deposit fund established *solely for the purpose of managing compensatory lands in perpetuity* pursuant to California Government Code section 16370. If the special deposit fund is not used to manage the endowment, the California Wildlife Foundation or similarly approved entity identified by CDFG shall manage the endowment for CDFG and with CDFG supervision.
- e. Interest, Principal, and Pooling of Funds. The Project owner, CDFG and the CPM shall ensure that an agreement is in place with the endowment holder/manager to ensure the following conditions:
  - i. Interest. Interest generated from the initial capital endowment shall be available for reinvestment into the principal and for the long-term operation, management, and protection of the approved compensation lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action approved by CDFG designed to protect or improve the habitat values of the compensation lands.
  - Withdrawal of Principal. The endowment principal ii. shall not be drawn upon unless such withdrawal is deemed necessary by the CDFG or the approved third-party endowment manager to ensure the continued viability of the species on the compensation lands4,737 acres. If CDFG takes fee title to the compensation lands, monies received by CDFG pursuant to this provision shall be deposited in a special deposit fund established solely for the purpose of managing compensatory lands in perpetuity pursuant to Government Code section 16370. If the special deposit fund is not used to manage the endowment, the California Wildlife Foundation or similarly approved entity identified by CDFG would manage the endowment for CDFG with CDFG supervision.
  - iii. Pooling Endowment Funds. CDFG, or a CPM and CDFG approved non-profit organization qualified to hold endowments pursuant to California Government Code section 65965, may pool the endowment with other endowments for the operation, management, and protection of the *compensation lands* 4,737 acres for local populations of desert tortoise. However, for reporting purposes, the endowment fund must be tracked and reported individually to the CDFG and CPM.

iv. Reimbursement Fund. The Project owner shall provide reimbursement to CDFG or an approved third party for reasonable expenses incurred during title, easement, and documentation review; expenses incurred from other state or state approved federal agency reviews; and overhead related to providing compensation lands. The Project owner is responsible for all compensation lands acquisition/easement costs, including but not limited to, title and document review costs, as well as expenses incurred from other state agency reviews and overhead related to providing compensation lands to the department or approved third party; escrow fees or costs; environmental contaminants clearance; and other site cleanup measures.

<u>Verification:</u> No later than 30 days prior to beginning Project ground-disturbing activities, the Project owner shall provide written verification of security in accordance with this condition of certification. The Project owner, or an approved third party, shall complete and provide written verification of the proposed compensation lands acquisition *and/or funding of the in lieu fee or species recovery programs*, within 18 months of the start of Project ground-disturbing activities.

No less than 90 days prior to acquisition of the property and/or funding of the in lieu fee or species recovery programs, the Project owner shall submit a formal acquisition proposal to BLM's Authorized Officer, the CPM, CDFG, and USFWS describing the parcels intended for purchase acquisition through purchase or easement and/or the in lieu fee or species recovery programs to be funded. If land acquisition is proposed, the Project owner, or an approved third party, shall provide BLM's Authorized Officer, the CPM, CDFG, and USFWS with a management plan for the compensation lands and associated funds within 180 days of the land or easement purchase, as determined by the date on the title. BLM's Authorized Officer and the CPM shall review and approve the management plan, in consultation with CDFG and the USFWS.

Within 90 days after completion of Project construction, the Project owner shall provide to the CPM and CDFG an analysis with the final accounting of the amount of habitat disturbed during Project construction.

If compensation lands are acquired, the Project owner shall provide written verification to BLM's Authorized Officer, the CPM, USFWS and CDFG that the compensation lands or conservation easements have been acquired and recorded in favor of the approved recipient no later than 18 months from the start of ground-disturbing activities from adoption of the Final Energy Commission decision for the Palen Solar Energy project.

#### Page C.2-170-171, Condition of Certification BIO-15

This condition requires nest surveys. To facilitate staged construction, PSI requests the following modifications so that nest surveys can be concentrated to only those portions of the project site that may be undergoing construction.

#### BIO-15

Pre-construction nest surveys shall be conducted if construction activities would occur from February 1 through August 31. The Designated Biologist or Biological Monitor conducting the surveys shall be experienced bird surveyors familiar with standard nest-locating techniques and shall perform surveys in accordance with the following guidelines:

 Surveys shall cover all potential nesting habitat in the portion of the area to be constructed in accordance with the approved construction phasing plan Project site or within 500 feet of the boundaries of the portion of the area to be constructed in accordance with the approved construction phasing plan site (including linear facilities);

#### Page C.2-171-172, Condition of Certification BIO-16

The Verification to this Condition of Certification requires submittal of an Avian Protection Plan no less than 10 days after the CEC issues the License or BLM issues the ROW. PSI requests this be modified consistent with other conditions that measure the verification timeline "prior to" an activity that gives rise to the impacts. In the case of potential impacts to birds a more appropriate timeline would be prior to commercial operation. We request the Verification be modified as follows

<u>Verification:</u> No less than 40 30 days following the docketing of the Energy Commission License Decision or publication of BLM's Record of Decision/ROW Issuance, whichever comes first, prior to commercial operation of any of the power plant units the project owner shall submit to the CPM, BLM's Authorized Officer, USFWS and CDFG a final Avian Protection Plan. Modifications to the Avian Protection Plan shall be made only after approval from BLM's Authorized Officer and the CPM.

#### Page C.2-174-175, Condition of Certification BIO-18

This condition requires preconstruction burrowing owl surveys. To facilitate staged construction, PSI requests the following modifications so that the surveys can be concentrated to only those portions of the project site that may be undergoing construction. In addition, the condition as written defines relocation sites and monitoring of the relocation site; however, the recommended relocation methods involve passive relocation, which does not involve active relocation of WBO to specific burrows. Therefore, defining and monitoring a relocation site is not relevant to the relocation of owls from the site. The Project owner will construct new or enhance existing burrows at an offsite location to support the passive relocation of WBO. The location of those burrows will be defined in the Burrowing Owl Mitigation Plan that will define passive relocation procedures. PSI requests that the Condition of Certification be revised to clarify this.

The Verification to this Condition of Certification requires submittal of a Burrowing Owl Mitigation Plan no less than 10 days after the CEC issues the License or BLM issues the ROW. PSI requests this be modified consistent with other conditions that measure the verification timeline "prior to" an activity that gives rise to the potential impacts to allow for participation in an in lieu fee program for compensatory mitigation. In the case of potential impacts to burrowing owls the appropriate timeline would be construction.

PSI requests the following modifications:

- The Project owner shall implement the following measures to avoid, minimize and offset impacts to burrowing owls:
  - Pre-Construction Surveys. The Designated Biologist or Biological Monitor shall conduct pre-construction surveys for burrowing owls in accordance with CDFG guidelines (California Burrowing Owl Consortium 1993). The survey area shall include that portion of the Project Disturbance Area that would be disturbed in accordance with the approved construction phasing plan and surrounding 500 foot survey buffer.
  - 2. Implement Burrowing Owl Mitigation Plan.
    - a. <u>Identify suitable relocation sites within 1 mile of the Project Disturbance areas for creation or enhancement of burrows prior to passive relocation efforts;</u>
    - b. ...
    - C. ...
    - d. Describe monitoring and management of the passive relocation effort, including the created or enhanced burrow location and the project area where WBO were relocated from relocated burrowing owl site, and provide a reporting plan.
  - 3. ...
    - 4. Acquire 78 Acres of Burrowing Owl Habitat. The Project owner shall acquire, in fee or in easement, 78 acres of land suitable to support a resident population of burrowing owls and shall provide funding for the enhancement and long-term management of these compensation lands. The acquisition and management of the compensation lands may be delegated by written agreement to CDFG or to a third party, such as a nongovernmental organization dedicated to habitat conservation, subject to approval by the CPM, in consultation with CDFG and USFWS prior to land acquisition or management activities. Additional funds shall be based on the adjusted market value of compensation lands at the time of construction to acquire and manage habitat. Alternatively, the Applicant may achieve compensatory mitigation through payment

### into an approved habitat enhancement fund or other in-lieu fee program.

<u>Verification</u>: At least Within-10 days prior to start of any Project-related ground disturbance activities of docketing of the Energy Commission Final Decision or publication of BLM's Record of Decision/ROW Issuance, whichever comes first, the Project owner shall submit to BLM's Authorized Officer, the CPM, CDFG and USFWS an agency-approved final Burrowing Owl Mitigation Plan.

No less than 90 days prior to acquisition of the property, and/or funding of the in lieu fee or species recovery programs, the Project owner, or an approved third party, shall submit a formal acquisition proposal to the CPM, BLM's Authorized Officer, CDFG, and USFWS describing the 78-acre parcel intended for purchase acquisition (purchase or easement) or equivalent fee program to be funded. If land acquisition is proposed, aAt the same time the project owner shall submit a PAR or PAR-like analysis for the parcels for review and approval by the CPM, BLM's Authorized Officer, CDFG and USFWS.

If compensation land is acquired, wWithin 90 days of the land or easement purchase, as determined by the date on the title, the Project owner shall provide the CPM with a management plan for review and approval, in consultation with CDFG, for the compensation lands and associated funds.

No later than 30 days prior to beginning Project ground-disturbing activities, the project owner shall provide written verification of Security in accordance with this condition of certification.

No later than 30 days prior to beginning Project ground-disturbing activities, the project owner shall provide written verification of Security in accordance with this condition of certification.

No later than 18 months from *the start of any Project-related ground disturbance activities* a Energy Commision final Decision or publication of BLM's record of Decision/ROW Issuance, whichever comes first, the project owner shall provide written verification to the BLM's Authorized Officer, the CPM, and CDFG that 39 acres of compensation lands or conservation easements have been acquired and recorded in favor of the approved recipient.

#### Page C.2-176 - 178, Condition of Certification BIO-20

See tortoise response above regarding equivalent fees for compensatory mitigation and the sand transport response above for additional discussion on sand dune and MFTL impacts.

The project owner shall mitigate for direct and indirect impacts to stabilized and **BIO-20** partially stabilized sand dunes and other Mojave fringe-toed lizard habitat by acquisition of compensation land and/or fees (or the acreage of Mojave fringetoed lizard habitat impacted by the final project footprint), which may include compensation lands purchased in fee or in easement, equivalent fees, or a combination thereof. Compensation lands or equivalent shall be based on approved mitigation ratio for direct impacts to Mojave fringe-toed lizard habitat. Indirect impacts shall be mitigated at approved ratio to impact). At least 855 acres (or acreage based on impacts to dune habitat by the final project footprint), of this acquisition shall consist of stabilized and partially stabilized sand dunes. If compensation lands are acquired, the project owner shall provide funding for the acquisition in fee or in easement, initial habitat improvements, and long-term management endowment of the compensation lands. The timing of the mitigation shall be in accordance with the CPM approved construction phasing plan.

- a. <u>Criteria for Compensation Lands</u>: The compensation lands selected for acquisition shall:
  - a. Be sand dune or partially stabilized sand dune habitat within the Chuckwalla Valley NECO Planning Area, with preference in the Chuckwalla Valley, with potential to contribute to Mojave fringe-toed lizard habitat connectivity and build linkages between known populations of Mojave fringe-toed lizards and preserve lands with suitable habitat;
  - b. **To the extent practicable**, be connected to lands currently occupied by Mojave fringe-toed lizard;
  - c. **To the extent practicable**, Provide quality habitat for Mojave fringe-toed lizard, that has the capacity to regenerate naturally when disturbances are removed;...

#### **Verification:**

No later than 30 days prior to beginning Project ground-disturbing activities, the Project owner shall provide written verification of security in accordance with this condition of certification. The Project owner, or an approved third party, shall complete and provide written verification of the proposed compensation lands acquisition **and/or funding of the in lieu fee or species recovery programs** within 18 months of the start of Project ground-disturbing activities.

No less than 90 days prior to acquisition of the property *and/or funding of the in lieu fee or species recovery programs*, the Project owner shall submit a formal acquisition proposal to BLM's Authorized Officer, the CPM, CDFG, and USFWS describing the parcels intended for purchase acquisition (through purchase or easement), and/or the in lieu fee or species recovery programs to be funded. If land acquisition is proposed, the Project owner, or an approved third party, shall provide BLM's Authorized Officer, the CPM, CDFG, and USFWS with a management plan for the compensation lands and associated funds within 180 days of the land or easement purchase, as determined by the date on the title. BLM's Authorized Officer and the CPM shall review and

approve the management plan, in consultation with CDFG and the USFWS.

Within 90 days after completion of Project construction, the Project owner shall provide to the CPM and CDFG an analysis with the final accounting of the amount of habitat disturbed during Project construction.

If compensation lands are acquired, the Project owner shall provide written verification to BLM's Authorized Officer, the CPM, USFWS and CDFG that the compensation lands or conservation easements have been acquired and recorded in favor of the approved recipient no later than 18 months from adoption of the Final Energy Commission Decision the start of ground-disturbing activities for the Palen Solar Power Project.

#### Page C.2-178 – 181, Condition of Certification BIO-21

As discussed above under BIO-12 (desert tortoise compensatory mitigation), the NECO Plan includes the option of directing equivalent funds towards desert dry wash woodland community enhancement or rehabilitation as opposed to simply requiring land acquisition for impacts to this community and other wash habitats. PSI requests that BIO-21 be modified to allow this flexibility for mitigating impacts to State waters. We also request that the following language be revised to allow greater flexibility given the limited private lands available in the area:

#### BIO-21 Point 1.

 Acquire Off-Site State Waters: The project owner shall acquire, in fee or in easement, a parcel or parcels of land that includes at least 643 acres of state jurisdictional waters, or pay an equivalent fee to an approved fee program. The parcel or parcels comprising the 643 acres of ephemeral washes shall include at least 465 acres of desert dry wash woodland...

<u>Verification</u>: No less than 30 days prior to the start of construction-related ground disturbance potentially affecting waters of the state...

No less than 30 days prior to the beginning of Project ground-disturbing activities, the Project owner shall provide written verification of security in accordance with this condition of certification. The Project owner, or an approved third party, shall complete and provide written verification of the proposed compensation lands acquisition **and/or funding of the recovery or lie fee programs,** within 18 months of the start of Project ground-disturbing activities.

If land acquisition is proposed, the Project owner, or an approved third party, shall provide BLM's Authorized Officer, the CPM, CDFG, and USFWS with a management plan for the compensation lands and associated funds within 180 days of the land or easement purchase, as determined by the date on the title. If compensation lands are acquired, the Project owner shall provide written verification to BLM's Authorized Officer, the CPM, USFWS and CDFG that the compensation lands or conservation easements have been acquired and recorded in favor of the

approved recipient no later than 18 months from adoption of the Final Energy Commission Decision the start of ground-disturbing activities for the Palen Solar Power Project.

...

PSI also requests changes to the verification section regarding biological conditions to remove the reference to non-native vegetation being listed. Non-native vegetation in the desert should not become a listed resource.

<u>Biological Conditions</u>: a change in biological conditions includes, but is not limited to the following: 1) the presence of biological resources within or adjacent to the Project area, whether native or non-native, not previously known or occur in the area; or 2) the presence of biological resources within or adjacent to the Project area, whether native or non-native, the status of which was changed to endangered, rare, or threatened, as defined in section 15380 of Title 14 of the California Code of Regulations.

#### Page C.2-149, Condition of Certification BIO-22

This condition requires a Decommissioning and Reclamation Plan. PSI agrees that such a plan is required by federal regulations but does not believe that it can prepare a plan now to restore the site to natural conditions. The full disturbance area will have been mitigated by the Conditions of Certification and therefore the only requirement for such a plan is BLM administering regulations. The ultimate decision of what land use to which the site should be reclaimed lies with BLM. PSI requests the details of the plan be administered by BLM and has modified the Condition accordingly.

#### **BIO-22**

Upon Project closure the Project owner shall implement a final Decommissioning and Reclamation Plan to remove the engineered diversion channels from for the Project site. The goal of the plan shall be to restore the site's topography and hydrology to a relatively natural condition and to establish native plant communities within the Project Disturbance Area. The Channel-Decommissioning and Reclamation Plan shall include a cost estimate for implementing the proposed decommissioning and reclamation activities, and shall be consistent with the guidelines in BLM's 43 CFR 3809.550 et seq., subject to review and revisions from BLM's Authorized Officer and the CPM in consultation with USFWS and CDFG.

<u>Verification</u>: At least No less than 30 days from publication of the Energy Commission Decision or the Record of Decision, whichever comes first, prior to the start of construction the Project owner shall provide to BLM's Authorized Officer and the CPM an agency-approved final draft Channel Decommissioning and Reclamation Plan. The plan shall be finalized prior to the start of commercial operation and reviewed every five years thereafter and submitted to the BLM's Authorized Officer for approval. Modifications to the approved Channel Decommissioning Plan shall be made only after approval from BLM's Authorized Officer and the CPM, in consultation with USFWS, and CDFG.

No more that 10 days *pPrior* to initiating Project-related ground disturbance activities the Project owner shall provide financial assurances to BLM's Authorized Officer and the CPM to guarantee that an adequate level of funding would be available to implement measures described in the Channel-Decommissioning and Reclamation Plan, consistent with the provisions set forth in 43 C.F.R. sections 2805.12 and 3809.500-.599.

#### Page C.2-182 – 185, Conditions of Certification BIO-23 and BIO-24

The applicant does not agree with the requirement to engage in Groundwater Dependent Vegetation Mitigation and Monitoring. Please see our above comments in response to Page C.2-69-71 of the SA/DEIS.

Dated: May 12, 2010

/original signed/

Scott A. Galati Counsel to Palen Solar I, LLC



# BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA 1516 NINTH STREET, SACRAMENTO, CA 95814 1-800-822-6228 – WWW.ENERGY.CA.GOV

#### APPLICATION FOR CERTIFICATION FOR THE PALEN SOLAR POWER PLANT PROJECT

#### Docket No. 09-AFC-7

### PROOF OF SERVICE (Revised 4/19/10)

#### **APPLICANT**

Alice Harron
Senior Director of Project
Development
1625 Shattuck Avenue, Suite 270
Berkeley, CA 94709-1161
harron@solarmillenium.com

Elizabeth Ingram, Associate Developer, Solar Millennium, LLC 1625 Shattuck Avenue Berkeley, CA 94709 ingram@solarmillennium.com.

Arrie Bachrach AECOM Project Manager 1220 Avenida Acaso Camarillo, CA 93012 arrie.bachrach@aecom.com

Ram Ambatipudi Chevron Energy Solutions 150 E. Colorado Blvd., Ste. 360 Pasadena, CA 91105 rambatipudi@chevron.com.

#### Co-COUNSEL

Scott Galati, Esq. Galati/Blek, LLP 455 Capitol Mall, Suite 350 Sacramento, CA 95814 sgalati@gb-llp.com

#### Co-COUNSEL

Peter Weiner, Matthew Sanders
Paul, Hastings, Janofsky &
Walker LLP
55 2nd Street, Suite 2400-3441
San Francisco, CA 94105
peterweiner@paulhastings.com
matthewsanders@paulhastings.com

**INTERVENORS** 

California Unions for Reliable
Energy (CURE)
c/o Tanya A. Gulesserian,
Marc D. Joseph
\*Jason W. Holder
Adams Broadwell Joseph &
Cardozo
601 Gateway Boulevard,
Suite 1000
South San Francisco, CA 94080
tgulesserian@adamsbroadwell.com
jholder@adamsbroadwell.com\*

Michael E. Boyd, President Californians for Renewable Energy, Inc. 5439 Soquel Drive Soquel, CA 95073-2659 michaelboyd@sbcglobal.net

Alfredo Figueroa Californians for Renewable Energy, Inc. 424 North Carlton Blythe, CA 92225 lacunadeaztlan@aol.com

\*Basin and Range Watch Kevin Emmerich Laura Cunningham P.O. Box 153 Baker, CA 92309 atomictoadranch@netzero.net

#### **INTERESTED AGENCIES**

California ISO <u>e-recipient@caiso.com</u> Holly L. Roberts, Project Manager Bureau of Land Management Palm Springs-South Coast Field Office 1201 Bird Center Drive Palm Springs, CA 92262 CAPSSolarBlythe@blm.gov

#### **ENERGY COMMISSION**

ROBERT WIESENMILLER Commissioner and Presiding Member rweisenm@energy.state.ca.us

KAREN DOUGLAS
Chairman and Associate Member
kldougla@energy.state.ca.us.

Raoul Renaud Hearing Officer rrenaud@energy.state.ca.us

Alan Solomon
Siting Project Manager
asolomon@energy.state.ca.us

Lisa DeCarlo Staff Counsel Idecarlo@energy.state.ca.us

Jennifer Jennings
Public Adviser's Office
publicadviser@energy.state.ca.us

#### **DECLARATION OF SERVICE**

I, Marie Mills, declare that on May 12, 2010, I served and filed copies of the attached PALEN SOLAR I, LLC'S INITIAL COMMENTS ON THE BIOLOGICAL RESOURCES SECTION OF THE STAFF ASSESSMENT/ DRAFT ENVIRONMENTAL IMPACT STATEMENT, dated May 12, 2010. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: [http://www.energy.ca.gov/sitingcases/solar\_millennium\_palen]

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check all that Apply)  For Service to all other parties:
sent electronically to all email addresses on the Proof of Service list; by personal delivery;
AND
FOR FILING WITH THE ENERGY COMMISSION:
X_ sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below ( <i>preferred method</i> );
OR depositing in the mail an original and 12 paper copies, as follows:
CALIFORNIA ENERGY COMMISSION Attn: Docket No. <u>09-AFC-7</u> 1516 Ninth Street, MS-4 Sacramento, CA 95814-5512
docket@energy.state.ca.us
I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.
// Original Signed //
Marie Mills