

DOCKET

09-AFC-10

DATE OCT 22 2010

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October 22, 2010

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

**Subject: RICE SOLAR ENERGY, LLC'S OPENING TESTIMONY (Part 2)
RICE SOLAR ENERGY PROJECT
DOCKET NO. (09-AFC-10)**

Enclosed for filing with the California Energy Commission is the original of **RICE SOLAR ENERGY, LLC'S OPENING TESTIMONY (Part 2)** for the Rice Solar Energy Project (09-AFC-10).

Part 2 contains the three remaining sections of the SA/DEIS that were not included in Part 1 of our Opening Testimony which are Biological Resources, Cultural Resources, and Worker Safety – Fire Protection.

Sincerely,



Marie Mills

**Rice Solar Energy LLC's Opening Testimony
Part 2 (Biological Resources, Cultural Resources, &
Worker Safety-Fire Protection)**

Rice Solar Energy Project (09-AFC-10)

October 22, 2010

STATE OF CALIFORNIA

Energy Resources
Conservation and Development Commission

In the Matter of:

Application For Certification for the
RICE SOLAR ENERGY PROJECT

DOCKET NO. 09-AFC-10

DECLARATION OF
Doug Davy

I, Doug Davy, declare as follows:

1. I am presently employed by CH2M HILL, as a Program Manager.
2. A copy of my professional qualifications and experience is included herewith (Attachment A to Testimony) and is incorporated by reference in this Declaration.
3. The attached testimony relating to Biological Resources for the Rice Solar Energy Project (California Energy Commission Docket Number 09-AFC-10) was prepared under my direction.
4. It is my professional opinion that the attached prepared testimony is valid and accurate with respect to issues that it addresses.
5. I am personally familiar with the facts and conclusions related in the attached prepared testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct to the best of my knowledge and that this declaration was executed on October 22, 2010.



Doug Davy

I. Name(s): Doug Davy

II. Purpose:

My testimony addresses the subject of Biological Resources associated with the construction and operation of the Rice Solar Energy Project (09-AFC-10).

III. Qualifications:

Doug Davy: I am presently employed at CH2M HILL and have been for the past 6 years and am presently a Program Manager with that organization. I have a PhD in Archaeology and I have over 24 years of experience in the field of regulatory compliance and project management support for infrastructure development projects. I prepared or assisted in the preparation of the Biological Resources section of the AFC as well as the post-filing information, data responses, and supplemental filings. A detailed description of my qualifications is contained in the attached resume.

IV. Exhibits:

In addition to this written testimony, I am sponsoring the following exhibits in this proceeding.

- Exhibit 1 **Application for Certification Volumes I and II**, dated October 2009, and docketed on October 21, 2009, Section 5.2, Appendix 5.2A-F.

- Exhibit 3 **Plan of Development Completion Letter**, dated February 9, 2010, and docketed on February 18, 2010.

- Exhibit 4 **Rice Solar Energy, LLC's Response to CEC Staff Data Requests 1 to 168**, dated March 2010, and docketed March 9, 2010, Responses 44 through 77.

- Exhibit 7 **Rice Solar Energy, LLC's Draft Biological Assessment in Response to CEC Staff Data Requests 45, 47, and 48**, dated March 2010, and docketed April 1, 2010.

- Exhibit 9 **Rice Solar Energy, LLC's Response to CEC Staff Workshop Queries 4, 6 - 8 & 11**, dated April 2010, and docketed on April 12, 2010, Response 4.

- Exhibit 12 **Rice Solar Energy, LLC's Response to CEC Staff Biological Resources, Data Requests 49-51, 54, 56, 58, 75 & Response to CEC Staff Soil & Water Resources Data Request 121**, dated April 2010 and docketed on April 27, 2010, Responses 49 through 51, 54, 56, 58 & 75.
- Exhibit 15 **Rice Solar Energy, LLC's Response to CEC Data Request 61**, dated May 2010, and docketed on May 5, 2010.
- Exhibit 16 **Rice Solar Energy, LLC's Response to CEC Staff Data Request 46**, dated May 2010, and docketed on May 7, 2010.
- Exhibit 18 **Rice Solar Energy, LLC's Mojave Fringe-toed Lizard Habitat Assessment**, dated May 2010, and docketed on May 14, 2010.
- Exhibit 19 **Rice Solar Energy, LLC's Interim Report on Avian Point Count & Burrowing Owl Phase 2 Surveys**, dated May 9, 2010, and docketed on May 14, 2010.
- Exhibit 29 **Supplementary Information Item 4 - Preliminary Results of the Golden Eagle Aerial Surveys**, dated June 13, 2010, and docketed June 23, 2010.
- Exhibit 35 **Rice Solar Energy, LLC's Response to CEC Staff Data Request 72 - Spring 2010 Supplemental Botanical Inventory Report**, dated July 20, 2010, and docketed on July 21, 2010.
- Exhibit 37 **Golden Eagle Survey Report**, dated July 21, 2010, and docketed on July 27, 2010.
- Exhibit 41 **Supplementary Information Item 8, Biological Resources Vegetation & Wash Channel Acreages**, dated August 23, 2010, and docketed on August 23, 2010.
- Exhibit 46 **Rice Solar LLC's Fall 2010 Supplemental Botanical Inventory Report**, dated October 12, 2010, and docketed on October 13, 2010.

Exhibit 47 **Rice Solar Energy LLC's, Supplementary Information Item 9, Biological Mitigation Acreage Table and Map**, dated October 15, 2010, and docketed on October 15, 2010.

V. Opinion and Conclusions:

I have reviewed the Biological Resources section of the SA/DEIS and with incorporation of the several changes noted below to the analysis and Conditions of Certification contained in the SA/DEIS, the Project will not result in significant Biological impacts and will comply with all applicable Biological Resource laws, ordinances, regulations and standards (LORS).

Global Changes:

RSE requests the Committee to make the following Global Changes to the SA/DEIS to reflect the refinement of the mitigation acreage determination and calculation since the submission of the AFC (see Exhibit 47, Biological Mitigation Acreage Table and Map, attached).

Specific Changes:

Page 6.2-172, BIO-10: *RSE is proposing the following revision to BIO-10, requesting that the revegetation condition be made consistent with the language in the Palen project. Changes are shown as follows: ~~striketrough~~ shows the deletions and the added language is in **bold-underlined** text.*

REVEGETATION PLAN AND COMPENSATION FOR IMPACTS TO NATIVE VEGETATION COMMUNITIES

BIO-10 The project owner shall provide restoration/compensation for impacts to native vegetation communities and develop and implement a Revegetation Plan for all areas subject to temporary (albeit long-term) project disturbance, including but not limited to linear features and berms of detention or debris basins, to the extent permitted by stormwater control requirements (see above, **Construction Impacts to Vegetation**). Upon completion of construction, all temporarily disturbed areas, including the logistics/lay down areas; all generator tie-line and existing 161-kV Parker-Blythe #2 transmission line tower sites, pull sites, and similar areas) shall be restored to pre-project grade and conditions. Other temporarily disturbed areas within the project area shall include, but shall not be limited to: all areas where

underground infrastructure was installed, temporary access roads, construction work temporary lay-down areas, and construction equipment staging areas. The following measures shall be implemented for the revegetation effort areas not subject to the facility Landscape Plan. These measures will include:

1. Plan Details. The revegetation plan shall include at minimum: (a) locations and details for top soil storage; (b) methods to salvage and replant cacti, yucca, or other species described in BIO-12 Section E, or to plant out nursery stock of these species onto revegetation sites; (c) seed collection guidelines; (d) a schematic depicting the mitigation area; (e) time of year that the planting will occur and the methodology of the planting; (f) a description of the irrigation methodology if used; (g) measures to control exotic vegetation on site; (h) success criteria; and (i) a detailed monitoring program. All habitats dominated by non-native species prior to project disturbance shall be revegetated using appropriate native species. This plan shall also contain contingency measures for failed restoration efforts (efforts not meeting success criteria).
2. Topsoil Salvage. Topsoil shall be stockpiled from the project site for use in revegetation of the disturbed soils. The topsoil excavated shall be segregated, kept intact, and protected, under conditions shown to sustain seed bank viability. The upper 1 inch of topsoil which contains the seed bank shall be scraped and stockpiled for use as the top-dressing for the revegetation area. An additional 6 to 8 inches of soil below the top 1 inch of soil shall also be scraped and separately stockpiled for use in revegetation areas. Topsoil shall be replaced in its original vertical orientation following ground disturbance, ensuring the integrity of the top one inch in particular. All other elements of soil stockpiling shall be conducted as described on pages 39-40 of *Rehabilitation of Disturbed Lands in California* (Newton and Claassen 2003).
3. Seed and Nursery Stock. Only seed or potted nursery stock of locally occurring native species shall be used for revegetation. Seeds shall contain a mix of short-lived early pioneer species such as native annuals and perennials and shrubs. Seeding and planting shall be conducted as described in Chapter 5 of *Rehabilitation of Disturbed Lands in California* (Newton and Claassen 2003). A list of plant species suitable for Colorado Desert region revegetation projects, including recommended seed treatments, are included in Appendix A-9 of the same report. The list of plants observed during the special-status plant surveys of the project area can also be used as a guide to site-specific plant selection for revegetation. In conformance with BLM policy, the project owner shall include salvaged or nursery stock yucca (all species), and cacti (excluding cholla species, genus *Cylindropuntia*), in revegetation plans and implementation affecting BLM lands, as described in **BIO-12** Section E.

4. Monitoring Requirement and Success Criteria. Post-seeding and planting monitoring will be yearly and shall continue for a period of no less than ~~40~~ 2-years or until the defined success criteria are achieved. If the survival and cover requirements have not been met, the project owner is responsible for replacement planting to achieve these requirements or other remedial action as agreed to by the CPM in consultation with BLM and Western. Replacement plants shall be monitored with the same survival and growth requirements as required for original revegetation plantings. Remediation activities (e.g., additional planting, removal of non-native invasive species, or erosion control) shall be taken during the ~~2~~ 10-year period if necessary to ensure the success of the restoration effort. ~~If the mitigation fails to meet the established performance criteria after the 10-year maintenance and monitoring period, monitoring and remedial activities shall extend beyond the 10-year period until the criteria are met or unless otherwise specified by the CPM in consultation with BLM and Western.~~ The following performance standards must be met by the end of monitoring year two:
- At least 80% of the species observed within the temporarily disturbed areas shall be native species that naturally occur in desert scrub habitats; and
 - Relative cover and density of plant species within the temporarily disturbed areas shall equal at least 60%.
5. Replacement. ~~If a fire occurs in a revegetation area within the 10-year monitoring period, the owner shall be responsible for a one-time replacement. If a second fire occurs, no replanting is required, unless the fire is caused by the owner's activity (e.g., as determined by BLM or other firefighting agency investigation).~~

Verification: All mitigation measures and their implementation methods shall be included in the BRMIMP and implemented.

Within 90 days after completion of each year of project construction, the project owner shall provide to the CPM verification of the total vegetation acreage subject to temporary and permanent disturbance and a written report identifying which items of the Revegetation Plan have been completed, a summary of all modifications to mitigation measures made during the project's construction phase, and which items are still outstanding. To monitor and evaluate the success of the revegetation, the project owner shall submit annual reports of the revegetation including the status of the site, percent cover of native and exotics, and any remedial actions conducted by the owner to the CPM and BLM.

On January 31st of each year following construction until the completion of the revegetation monitoring specified in the Revegetation Plan, the Designated Biologist shall provide a report to the CPM that includes: a summary of revegetation activities for the year, a discussion of whether revegetation performance standards for the year were

met, and recommendations for revegetation remedial action, if warranted, that are planned for the upcoming year.

Page 6.2-177 et seq., Condition of Certification, BIO-12. *RSE has completed the Special Status Plant Fall survey and has modified the condition accordingly. The Condition is lengthy and to ensure context and content are not confused the entire condition is included herein; changes are shown as follows: ~~strikethrough~~ shows the deletions and the added language is in **bold-underlined** text.*

BIO-12 This condition contains the following ~~five~~**four** sections:

- **Section A: Avoidance and Minimization Measures** describes measures to avoid and protect Harwood's milk-vetch locations on the generator tie-line alignment within 250 feet of project activities (including access roads, staging areas, laydown areas, parking and storage areas) from accidental and indirect impacts during construction, operation, and closure.
- ~~**Section B: Conduct Further Botanical Surveys**~~ describes guidelines for ~~conducting summer-fall 2010 surveys to detect special status plants that may have been missed during spring surveys on the solar generator site and generator tie-line alignment;~~ describes guidelines for summer-fall and pre-construction spring surveys on the existing Western 161-kV Parker-Blythe transmission line alignment.
- ~~**Section B:**~~ **Mitigation Requirements for Special-Status Plants Detected** outlines the level of avoidance required for **rare** plants detected during the further surveys (~~Section B~~), based on the species' rarity and status codes. Avoidance is based on extent of local occurrences in the Project disturbance Area and, as applicable, extending onto contiguous public land.
- ~~**Section B:**~~ **Off-Site Compensatory Mitigation for Special-Status Plants** describes performance standards for mitigation for a range of options for compensatory mitigation through acquisition, restoration/enhancement, or a combination of acquisition and restoration/enhancement.
- ~~**Section B:**~~ **Conformance with BLM Plant Protection Policies** describes measures to salvage and transplant certain cacti, yucca, and other species in conformance with BLM policies.

"Project Disturbance Area" encompasses all areas to be temporarily and permanently disturbed by the Project, including the solar generator site, linear facilities, and areas disturbed by temporary access roads, fence installation, construction work lay-down and staging areas, parking, storage, or by any other activities resulting in disturbance to soil or vegetation. Nothing in this condition requires the project owner to conduct botanical surveys on private lands adjacent to the project site when the project owner has made

reasonable attempts to obtain permission to enter the property for survey work but was unable to obtain such permission

The Project owner shall implement the following measures in Section A, B, C, **and** D ~~and E~~ to avoid, minimize, and compensate for impacts to special-status plant species:

Section A: Special Status Plant Impact Avoidance and Minimization Measures

To protect Harwood's milk-vetch or other CNPS List 1 or List 2 plants (excluding chaparral sand-verbena) located within the project area or within 250 feet of its boundaries (including access roads, staging areas, laydown areas, parking and storage areas) from accidental and indirect impacts during construction, operation, and closure, the Project owner shall implement the following measures:

1. Designated Botanist. An experienced botanist ~~who meets the qualifications described in Section B-2 below~~ shall oversee compliance with all special-status plant avoidance, minimization, and compensation measures described in this condition throughout construction, operation, and closure. The Designated Botanist shall oversee and train all other Biological Monitors tasked with conducting botanical survey and monitoring work. **The Designated Botanist shall be a qualified botanist knowledgeable in the complex biology of the local flora and consistent with CDFG (2009) and BLM (2009b) protocols.**
2. Special Status Plant Impact Avoidance and Minimization Plan. The Project owner shall prepare and implement a Special Status Plant Impact Avoidance and Minimization Plan and shall incorporate the Plan into the BRMIMP (**BIO-7**). The Plan shall be designed to prevent direct or indirect effects of project construction and operation to CNPS List 1 and List 2 plants (excluding chaparral sand-verbena) within or within 250 feet of the project disturbance area. The Plan shall include the following elements:
 - a. Site Design Modifications: Incorporate site design modifications to minimize impacts to special-status plants along the Project linears, as follows: limit the width of the work area; adjust the location of staging areas, lay downs, spur roads and poles or towers; drive and crush vegetation as an alternative to blading temporary roads to preserve soil integrity and seed banks, and adjust the alignments of roads and access points within the constraints of the ROW. These modifications shall be clearly depicted on the grading and construction plans, and on report-sized maps in the BRMIMP.
 - b. Designate Environmentally Sensitive Areas (ESAs). Before construction, designate ESAs to protect all known CNPS List 1 or List 2 plant locations (excluding chaparral sand-verbena) within the project disturbance area or within 250 feet of disturbance area. The locations of ESAs shall be clearly depicted on construction drawings, which shall

also include all avoidance and minimization measures on the margins of the construction plans. The boundaries of the ESAs shall provide a minimum of 250 feet buffer area between plant locations and any ground-disturbing project activity. The ESAs shall be clearly delineated in the field with fencing and signs prohibiting movement of the fence under penalty of work stoppages and additional compensatory mitigation. ESAs shall also be marked (with signage or other markers) to ensure that avoided plants are not inadvertently harmed during construction.

- c. Special-Status Plant Worker Environmental Awareness Program (WEAP). The WEAP (**BIO-6**) shall include training components specific to protection of special-status plants as outlined in this condition.
- d. Herbicide and Soil Stabilizer Drift Control Measures. Special-status plant occurrences within 250 feet of the Project Disturbance Area shall be protected from any potential herbicide and soil stabilizer drift. The Weed Control Program (**BIO-11**) shall include measures to avoid chemical drift or residual toxicity to special-status plants consistent with guidelines such as those provided by Hillmer and Liedtke (2003) and Kegley et al. (2010).
- e. Erosion and Sediment Control Measures. Erosion and sediment control measures shall avoid adverse impacts to ESAs and shall not use invasive or non-native plants in seed mixes, introduce pest plants through contaminated seed or straw, etc. These measures shall be incorporated in the Drainage, Erosion, and Sedimentation Control Plan required under **SOIL&WATER-1**.
- f. Avoid Special-Status Plant Occurrences. Areas for spoils, equipment, vehicles, and materials storage areas; parking; equipment and vehicle maintenance areas, and wash areas shall be placed at least 100 feet from the boundaries of any ESAs.
- g. Monitoring and Reporting Requirements. The Designated Botanist shall conduct weekly monitoring of the ESAs that protect special-status plant occurrences during construction and decommissioning activities.

Section B: Conduct Further Botanical Surveys

~~The Project owner shall conduct late-summer/fall botanical surveys for late-season special-status plants throughout the Project Disturbance Area, and shall conduct pre-construction spring surveys along the existing Western 161-kV Parker-Blythe transmission line as described below:~~

- ~~3. Survey Timing. To the extent feasible, surveys shall be timed to detect all special-status species. Spring surveys shall be scheduled according to known flowering seasons of special-status plants of the area. To the~~

extent feasible, late-season surveys shall be timed to detect: a) summer annuals triggered to germinate by the warm, tropical summer storms (which may occur any time between June and October), and b) fall-blooming perennials that respond to the cooler, later season storms that originate in the Pacific northwest (typically beginning in September or October). The survey dates shall be based on plant phenology and the timing of a significant storm (i.e., a 10 mm or greater rain or storm event, as measured at or within 1 mile of the Project site) if an event is recorded. Surveys for summer annuals shall be timed to occur approximately 4 to 7 weeks following a warm, tropical storm. Re-surveys shall occur as many times as necessary to ensure that surveys are conducted during the appropriate identification period for the target taxa, which may be blooms, fruit, seed characteristics, or vegetative characteristics, depending on the taxon. However, due to the undependable nature and scattered patterns of summer and early fall rainfall, it is possible that no suitable rain event will be documented in the area. Nevertheless, the project owner shall be responsible for conducting late-season botanical surveys along washes and other lowland areas on-site due to the possibility that rainstorms in the Gady Mountains may go undetected, but may initiate summer or fall blooms.

4. Surveyor Qualifications and Training. Surveys shall be conducted by qualified botanists knowledgeable in the complex biology of the local flora and consistent with CDFG (2009) and BLM (2009b) protocols. The botanical survey crew shall be prepared to mobilize quickly to conduct appropriately timed surveys. Each field botanist shall be equipped with a GPS unit and record a complete tracklog; these data shall be compiled and submitted along with the Summer-Fall Survey Botanical Report (described below). Prior to the start of surveys, all crew members shall, at a minimum, visit target species reference sites (where available) and/or review herbarium specimens to obtain a search image.
5. Target Species. Field surveys shall be designed and scheduled to locate target species, defined as all BLM Sensitive plants, CNPS List 1 or 2 (Nature Serve rank S1 and S2) or proposed List 1 or 2 taxa, and any new reported or documented taxa. Because the potential for range extensions is unknown, the list of potentially occurring special-status plants shall include all special-status taxa known from comparable habitats within the eastern portion of the Colorado Desert in California. Determination of flowering season shall be based upon field visits to reference populations and data available online from the Consortium of California Herbaria and California Native Plant Society. The list of late-season target species shall also include taxa with bloom seasons that begin in fall and extend into the early spring as many of these are reported to be easier to detect in fall, following the start of the fall rains.

6. Survey Coverage. At a minimum, the Applicant shall conduct comprehensive surveys (i.e., 100 percent visual coverage) of the washes, dune swales, and other lowlands within the project disturbance area. In the intervening uplands (e.g., bajadas and rock outcrops) surveys shall be conducted to ensure a 25 percent visual coverage. Other special or unique habitats associated with rare plants (such as dunes, washes, and chenopod scrubs) shall also be surveyed at 100 percent visual coverage. Transects shall be “intuitive controlled” (per BLM 2009b) to ensure a focus on habitat most likely to support rare plants (such as desert washes or dunes), rather than on pre-defined, evenly spaced survey grids.
7. Documenting Occurrences. If a special-status plant is detected, the full extent of the population on-site shall be assessed using GPS in accordance with BLM survey protocols. Additionally, the extent and density of contiguous occupied habitat within one mile of project boundaries may be assessed at least qualitatively to facilitate an accurate estimation of the proportion of the occurrence affected by the project. For occurrences that are very dense or very large, the plant numbers may be estimated by simple sampling techniques and the survey report must provide qualitative or quantitative data describing the density and roughly mapping the extent on a topographic map. All but the smallest populations (e.g., a population occupying less than 100 square feet) shall be recorded as area polygons; small populations may be recorded as point features. All GPS-recorded occurrences shall include: the number of plants, phenology, observed threats (e.g., OHV or invasive exotics), and habitat or community type. The map of occurrences submitted with the progress reports and final botanical report shall be prepared to ensure consistency with mapping protocol and definitions of occurrences in CNDDDB: occurrences found within 0.25 miles of another occurrence of the same taxon, and not separated by significant habitat discontinuities, shall be combined into a single ‘occurrence.’ The Project Owner shall also submit the raw GPS shape files and metadata, and completed CNDDDB forms to CNDDDB for each occurrence as defined by CNDDDB.

Reporting. Raw GPS data, metadata, CNDDDB field forms shall be provided to the CPM within two weeks of completion of each survey. If field surveys take place during two or more phases (e.g., late summer and fall 2010; spring 2011), then a summary letter shall be submitted following each survey.

The Final Botanical Survey Report shall be prepared consistent with GDFG guidelines (CDFG 2009), and BLM guidelines (2009b) and shall include the following components:

- a. the BLM designation, NatureServe Global and State Rank of each species or taxon found (or proposed rank, or CNPS List);

- ~~b. the number or percent of the occurrence that will be directly affected, and indirectly affected by changes in drainage patterns or altered geomorphic processes;~~
- ~~c. the habitat or plant community that supports the occurrence and the total acres of that habitat or community type that occurs in the Project Disturbance Area;~~
- ~~d. an indication of whether the occurrence has any local or regional significance (e.g., if it exhibits any unusual morphology, occurs at the periphery of its range in California, represents a significant range extension or disjunct occurrence, or occurs in an atypical habitat or substrate);~~
- ~~e. a completed CNDDDB field form for every occurrence, and;~~
- ~~f. two maps: one that depicts the raw GPS data (as collected in the field) on a topographic base map with Project features; and a second map that follows the CNDDDB protocol for occurrence mapping, which lumps two or more occurrences of the same species within one-quarter mile or less of each other into one occurrence.~~

Section CB: Mitigation Requirements for Special-Status Plants Detected

The Project owner shall apply the following avoidance standards to special-status plants that might be detected during the surveys described above. Avoidance and/or mitigation measures described in Section ~~D-C~~ below would reduce impacts to special-status plant species to less than significant levels.

Mitigation for CNDDDB Rank S1 and S2 Plants: If species with a CNDDDB rank of S1 or S2 (CDFG 2010b), excluding chaparral sand-verbena, are detected within the Project Disturbance Area or otherwise would be directly impacted by project activities, the Project owner shall implement avoidance measures to protect at least 75 percent of the local occurrence(s) of the species. For perennial species, the local occurrence(s) shall be measured by the number of individual plants located on the Project Disturbance Area or on contiguous public or applicant-owned lands. For annual species, the occurrence(s) shall be measured as areal extent of contiguous occupied habitat on the Project Disturbance Area and on contiguous public or applicant-owned lands. Avoidance shall include protection of the ecosystem processes essential for maintenance of the protected plant occurrence. Plants located within the ESAs established pursuant to Section A above shall be considered to be “avoided” to the extent that direct impacts on the plants are avoided and that these processes would be maintained. If special status plant occurrences are isolated by the Project from natural fluvial, aeolian, or other processes known to be necessary for their persistence or reproduction, these occurrences shall not be considered “avoided.” This evaluation shall be made by the project Botanist and CPM, in consultation with CDFG and BLM, on a

case by case basis, dependent on the species and its location on the site. The Project owner shall provide compensatory mitigation as described below in Section ~~D-C~~ for Project impacts to CNDDDB Rank S1 and S2 plants that are not avoided. If the project Botanist, CPM, CDFG, and BLM agree that on-site avoidance would not allow for long-term viability of the plant occurrence(s), then compensatory mitigation may be substituted for avoidance for up to 100% of impacts to Rank S1 and S2 plants, as described below in Section ~~D-C~~.

Mitigation for CNDDDB Rank S3 Plants: If species with a CNDDDB rank of 3 are detected within the Project Disturbance Area, no onsite avoidance or compensatory mitigation shall be required unless the occurrence has local or regional significance, in which case the plant occurrence shall be treated as a CNDDDB S2 ranked plant. A plant occurrence would be considered to have local or regional significance if:

- a. It occurs at the outermost periphery of its range in California;
- b. It occurs in an atypical habitat, region, or elevation for the taxon that suggests that the occurrence may have genetic significance (e.g., that may increase its ability to survive future threats), or;
- c. It exhibits any unusual morphology that is not clearly attributable to environmental factors that may indicate a potential new variety or sub-species.

Should CNDDDB Rank S3 plant locations meeting any of the three criteria above be found on the project site during summer or fall field surveys, mitigation requirements for those species shall be as described above for CNDDDB Rank S1 and S2 species.

Pre-Construction Notification for State- or Federal-Listed Species, or BLM Sensitive Species. If a state or federal-listed species or BLM Sensitive species is detected, the Project owner shall immediately notify the CDFG, USFWS, BLM, and the CPM.

Preservation of the Germplasm of Affected Special-Status Plants. For all impacts to CNPS List 1 or List 2 plants, excluding chaparral sand-verbena, mitigation shall include seed collection from the affected special-status plants on-site prior to construction to conserve the germplasm and provide a seed source for restoration efforts. Where construction schedules or seed availability prevents seed collection from plant locations to be impacted during a given season, seed must be collected from another portion of the project site or, as approved by the CPM in consultation with BLM's State Botanist, from public or applicant-owned lands off-site. Seed collection on public land must only be done under permit from the BLM; the project owner shall be responsible for obtaining and complying with applicable permit(s). The seed shall be collected under the supervision or guidance of a reputable seed storage facility such as the Rancho Santa Ana Botanical Garden Seed

Conservation Program, San Diego Natural History Museum, or the Missouri Botanical Garden. The costs associated with the long-term storage of the seed shall be the responsibility of the Project owner. Any efforts to propagate and reintroduce special-status plants from seeds in the wild shall be carried out under the direct supervision of specialists such as those listed above and as part of a Habitat Restoration/Enhancement Plan approved by the CPM.

Section DC: Off-Site Compensatory Mitigation for Special-Status Plants

Where compensatory mitigation is required ~~under the terms of Section C, above,~~ the Project owner shall mitigate Project impacts to CNPS List 1 or List 2 plants (excluding chaparral sand-verbena) with compensatory mitigation. Compensatory mitigation shall consist of acquisition of habitat supporting the target species, restoration/enhancement of populations of the target species, or a combination of acquisition and restoration/enhancement as provided within this Condition. Compensatory mitigation shall be at a 3:1 ratio. For annual species, compensation shall provide three acres of habitat acquired or restored/enhanced for every acre of special-status plant habitat disturbed by the Project Disturbance Area. For perennial species, compensation lands shall supporting three living plants of the same species for each plant disturbed within the project area. The Project owner shall provide funding for the acquisition and/or restoration/enhancement, initial improvement, and long-term maintenance and management of the acquired or restored lands. The actual costs to comply with this condition will vary depending on the Project Disturbance Area, the actual costs of acquiring compensation habitat, the actual costs of initially improving the habitat, the actual costs of long-term management as determined by a Property Analysis Record (PAR) or PAR-like analysis, and other transactional costs related to the use of compensatory mitigation.

The Project owner shall comply with other related requirements in this condition:

I. Compensatory Mitigation by Acquisition: The requirements for the acquisition, initial protection and habitat improvement, and long-term maintenance and management of special-status plant compensation lands include all of the following:

Selection Criteria for Acquisition Lands. The compensation lands selected for acquisition may include any of the following three categories:

1. Occupied Habitat, No Habitat Threats: The compensation lands selected for acquisition shall be occupied by the target plant population and shall be characterized by site integrity and habitat quality that are required to support the target species, and shall be of equal or better habitat quality than that of the affected occurrence. The occurrence of the target special-status plant on the proposed acquisition lands should be viable, stable or increasing (in size and reproduction).
2. Occupied Habitat, Habitat Threats. Occupied compensation lands characterized by habitat threats may also be acquired as long as the population could be reasonably expected to recover with minor restoration (e.g., OHV or grazing

exclusion, pest plant removal) and is accompanied by a Habitat Enhancement/Restoration Plan as described in Section ~~D~~C.II, below.

3. Unoccupied but Adjacent. The Project owner may also acquire habitat for which occupancy by the target species has not been documented, if the proposed acquisition lands are adjacent to occupied habitat. The Project owner shall provide evidence that acquisitions of such unoccupied lands would improve the defensibility and long-term sustainability of the occupied habitat by providing a protective buffer around the occurrence and by enhancing connectivity with undisturbed habitat.

Review and Approval of Compensation Lands Prior to Acquisition. The Project owner shall submit a formal acquisition proposal to the CPM describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands for special-status plants in relation to the criteria listed above, and must be approved by the CPM.

Management Plan. The Project owner or approved third party shall prepare a management plan for the compensation lands in consultation with the entity that will be managing the lands. The goal of the management plan shall be to support and enhance the long-term viability of the target special-status plant occurrences. The Management Plan shall be submitted for review and approval to the CPM.

Integrating Special-Status Plant Mitigation with Other Mitigation lands. If all or any portion of the acquired Desert Tortoise, Waters of the State, or other required compensation lands meets the criteria above for special-status plant compensation lands, the portion of the other species' or habitat compensation lands that meets any of the criteria above may be used to fulfill that portion of the obligation for special-status plant mitigation.

Compensation Lands Acquisition Requirements. The Project owner shall comply with the following requirements relating to acquisition of the compensation lands after the CPM, has approved the proposed compensation lands:

- a. Preliminary Report. The Project owner, or an approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary or requested documents for the proposed compensation land to the CPM. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by the CPM. For conveyances to the State, approval may also be required from the California Department of General Services, the Fish and Game Commission and the Wildlife Conservation Board.
- b. Title/Conveyance. The Project owner shall acquire and transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement, as required by the CPM. Any transfer of a conservation easement or fee title must be to CDFG, a non-profit organization qualified to hold title to and manage compensation lands (pursuant to

California Government Code section 65965), or to BLM or other public agency approved by the CPM. If an approved non-profit organization holds fee title to the compensation lands, a conservation easement shall be recorded in favor of CDFG or another entity approved by the CPM. If an entity other than CDFG holds a conservation easement over the compensation lands, the CPM may require that CDFG or another entity approved by the CPM, in consultation with CDFG, be named a third party beneficiary of the conservation easement. The Project owner shall obtain approval of the CPM of the terms of any transfer of fee title or conservation easement to the compensation lands.

- c. Initial Protection and Habitat Improvement. The Project owner shall fund activities that the CPM requires for the initial protection and habitat improvement of the compensation lands. These activities will vary depending on the condition and location of the land acquired, but may include trash removal, construction and repair of fences, invasive plant removal, and similar measures to protect habitat and improve habitat quality on the compensation lands. The costs of these activities are estimated to be \$750 per acre (\$250 per acre, using the estimated cost per acre for Desert Tortoise mitigation as a best available proxy, at a 3:1 ratio, but actual costs will vary depending on the measures that are required for the compensation lands). A non-profit organization, CDFG or another public agency may hold and expend the habitat improvement funds if it is qualified to manage the compensation lands (pursuant to California Government Code section 65965), if it meets the approval of the CPM in consultation with CDFG, and if it is authorized to participate in implementing the required activities on the compensation lands. If CDFG takes fee title to the compensation lands, the habitat improvement fund must be paid to CDFG or its designee.
- d. Property Analysis Record. Upon identification of the compensation lands, the Project owner shall conduct a Property Analysis Record (PAR) or PAR-like analysis to establish the appropriate amount of the long-term maintenance and management fund to pay the in-perpetuity management of the compensation lands. The PAR or PAR-like analysis must be approved by the CPM before it can be used to establish funding levels or management activities for the compensation lands.
- e. Long-term Maintenance and Management Funding. The Project owner shall provide money to fund the long-term maintenance and management of the compensation lands. The amount of money to be paid will be determined through an approved PAR or PAR-like analysis conducted for the compensation lands. Until an approved PAR or PAR-like analysis is conducted for the compensation lands, the amount of required funding is initially estimated to be \$4,350 for every acre of compensation lands, using as the best available proxy the estimated cost of \$1,450 per acre for Desert Tortoise compensatory mitigation, at a 3:1 ratio. This amount may be revised up or down by the CPM in consultation with DFG, BLM and USFWS, based

on further analysis of long-term management and maintenance costs. If compensation lands will not be identified and a PAR or PAR-like analysis completed within the time period specified for this payment (see the verification section at the end of this condition), the Project owner shall either: (i) provide initial payment equal to the amount of \$4,350 multiplied by the number of acres the Project owner proposes to acquire for compensatory mitigation; or (ii) provide security to the Energy Commission under subsection (g), "Mitigation Security," below, in an amount equal to \$4,350 multiplied by the number of acres the Project owner proposes to acquire for compensatory mitigation. The amount of the required initial payment or security for this item shall be adjusted for any change in the Project Disturbance Area as described above. If an initial payment is made based on the estimated per-acre costs, the Project owner shall deposit additional money as may be needed to provide the full amount of long-term maintenance and management funding indicated by a PAR or PAR-like analysis, once the analysis is completed and approved. If the approved analysis indicates less than \$4,350 per acquired acre (at a 3:1 ratio) will be required for long-term maintenance and management, the excess paid will be returned to the Project owner. The Project owner must obtain the CPM's approval of the entity that will receive and hold the long-term maintenance and management fund for the compensation lands. The CPM will consult with CDFG before deciding whether to approve an entity to hold the Project's long-term maintenance and management funds.

The Project owner shall ensure that an agreement is in place with the long-term maintenance and management fund holder/manager to ensure the following requirements are met:

- i. Interest. Interest generated from the initial capital long-term maintenance and management fund 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 that is approved by the CPM and is designed to protect or improve the habitat values of the compensation lands.
- ii. Withdrawal of Principal. The long-term maintenance and management fund principal shall not be drawn upon unless such withdrawal is deemed necessary by the CPM or by the approved third-party long-term maintenance and management fund manager, to ensure the continued viability of the species on the compensation lands.
- iii. Pooling Long-Term Maintenance and Management Funds. An entity approved to hold long-term maintenance and management funds for the Project may pool those funds with similar funds that it holds from other projects for long-term maintenance and management of compensation lands

for special-status plants. However, for reporting purposes, the long-term maintenance and management funds for this Project must be tracked and reported individually to the CPM.

- f. Other Expenses. In addition to the costs listed above, the Project owner shall be responsible for all other costs related to acquisition of compensation lands and conservation easements, including but not limited to the title and document review costs incurred from other state agency reviews, overhead related to providing compensation lands to CDFG or an approved third party, escrow fees or costs, environmental contaminants clearance, and other site cleanup measures.
- g. Mitigation Security. The Project owner shall provide financial assurances to the CPM to guarantee that an adequate level of funding is available to implement any of the mitigation measures required by this condition that are not completed prior to the start of ground-disturbing Project activities. Financial assurances shall be provided to the CPM in the form of an irrevocable letter of credit, a pledged savings account or another form of security (“Security”) approved by the CPM. The amount of the Security shall be based upon staff’s estimate of per-acre acquisition, transaction, and management costs as described in Condition of Certification **BIO-16** for each acre of occupied habitat impacted, using the estimated cost per acre for Desert Tortoise mitigation as a best available proxy, at a 3:1 ratio; see **Biological Resources Tables 6 and 9**) for every acre of habitat supporting the target special-status plant species which is significantly impacted by the project. The actual costs to comply with this condition will vary depending on the actual costs of acquiring compensation habitat, the costs of initially improving the habitat, and the actual costs of long-term management as determined by a PAR report. Prior to submitting the Security to the CPM, the Project owner shall obtain the CPM’s approval of the form of the Security. The CPM may draw on the Security if the CPM determines the Project owner has failed to comply with the requirements specified in this condition. The CPM may use money from the Security solely for implementation of the requirements of this condition. The CPM’s use of the Security to implement measures in this condition may not fully satisfy the Project owner’s obligations under this condition, and the Project owner remains responsible for satisfying the obligations under this condition if the Security is insufficient. The unused Security shall be returned to the Project owner in whole or in part upon successful completion of the associated requirements in this condition.
- h. The Project owner may elect to comply with the requirements in this condition for acquisition of compensation lands, initial protection and habitat improvement on the compensation lands, or long-term maintenance and management of the compensation lands by funding, or any combination of these three requirements, by providing funds to implement those measures into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF). To use this option, the Project

owner must make an initial deposit to the REAT Account in an amount equal to the estimated costs (as set forth in the Security section of this condition) of implementing the requirement. If the actual cost of the acquisition, initial protection and habitat improvements, or long-term funding is more than the estimated amount initially paid by the Project owner, the Project owner shall make an additional deposit into the REAT Account sufficient to cover the actual acquisition costs, the actual costs of initial protection and habitat improvement on the compensation lands, and the long-term funding requirements as established in an approved PAR or PAR-like analysis. If those actual costs or PAR projections are less than the amount initially transferred by the applicant, the remaining balance shall be returned to the Project owner.

- i. The responsibility for acquisition of compensation lands may be delegated to a third party other than NFWF, such as a non-governmental organization supportive of desert habitat conservation, by written agreement of the Energy Commission. Such delegation shall be subject to approval by the CPM, in consultation with CDFG, BLM and USFWS, prior to land acquisition, enhancement or management activities. Agreements to delegate land acquisition to an approved third party, or to manage compensation lands, shall be executed and implemented within 18 months of the Energy Commission's certification of the Project.

II. Compensatory Mitigation by Habitat Enhancement/Restoration: As an alternative or adjunct to land acquisition for compensatory mitigation the Project owner may undertake habitat enhancement or restoration for the target special-status plant species. Habitat enhancement or restoration activities must achieve protection at a 3:1 ratio, with improvements applied to three acres of habitat for every acre special-status plant habitat directly or indirectly disturbed by the Project Disturbance Area. Examples of suitable enhancement projects include but are not limited to the following: i) control unauthorized vehicle use into an occurrence (or pedestrian use if clearly damaging to the species); ii) control weeds that infest or pose an immediate threat to an occurrence; iii) exclude grazing by wild burros or livestock from an occurrence; or iv) restore lost or degraded hydrologic or geomorphic functions critical to the species by restoring previously diverted flows, removing obstructions to the wind sand transport corridor above an occurrence, or increasing groundwater availability for dependent species.

If the Project owner elects to undertake a habitat enhancement project for mitigation, the project must meet the following performance standards: The proposed enhancement project shall achieve rescue of an off-site occurrence that is currently assessed, based on the NatureServe threat ranking system (Master et al. 2009; Morse et al. 2004) with one of the following threat ranks: a) long-term decline >30%; b) an immediate threat that affects >30% of the population, or c) has an overall threat impact that is High to Very High. "Rescue" would be considered successful if it achieves an improvement in the occurrence trend to "stable" or "increasing" status, or downgrading of the overall threat rank to slight or low (from "High" to "Very High").

If the Project owner elects to undertake a habitat enhancement project for mitigation, they shall submit a Habitat Enhancement/Restoration Plan to the CPM for review and approval, and shall provide sufficient funding for implementation and monitoring of the Plan. The amount of the Security shall be based upon staff's estimate of per-acre acquisition, transaction, and management costs as described in Condition of Certification **BIO-16** for each acre of occupied habitat impacted by the Project, using the estimated cost per acre for Desert Tortoise mitigation as a best available proxy, at a 3:1 ratio (see **Biological Resources Tables 6 and 9**). The amount of the security shall be adjusted based on the actual costs of implementing the enhancement, restoration and monitoring. The implementation and monitoring of the enhancement/restoration may be undertaken by an appropriate third party such as NFWF, subject to approval by the CPM. The Habitat Enhancement/Restoration Plan shall include each of the following:

1. Goals and Objectives. Define the goals of the restoration or enhancement project and a measurable course of action developed to achieve those goals. The objective of the proposed habitat enhancement plan shall include restoration of a target special-status plant occurrence that is currently threatened with a long-term decline. The proposed enhancement plan shall achieve an improvement in the occurrence trend to "stable" or "increasing" status, or downgrading of the overall threat rank to slight or low (from "High" to "Very High").
2. Historical Conditions. Provide a description of the pre-impact or historical conditions (before the site was degraded by weeds or grazing or ORV, etc.), and the desired conditions.
3. Site Characteristics. Describe other site characteristics relevant to the restoration or enhancement project (e.g., composition of native and pest plants, topography and drainage patterns, soil types, geomorphic and hydrologic processes important to the site or species).
4. Ecological Factors. Describe other important ecological factors of the species being protected, restored, or enhanced such as total population, reproduction, distribution, pollinators, etc.
5. Methods. Describe the restoration methods that will be used (e.g., invasive exotics control, site protection, seedling protection, propagation techniques, etc.) and the long-term maintenance required. The implementation phase of the enhancement must be completed within five years.
6. Budget. Provide a detailed budget and time-line, develop clear, measurable, objective-driven annual success criteria.
7. Monitoring. Develop clear, measurable monitoring methods that can be used to evaluate the effectiveness of the restoration and the benefit to the affected species. The Plan shall include a minimum of five years of quarterly monitoring, and then annual monitoring for the remainder of the enhancement project, or until the performance standards for rescue of a threatened occurrence are met,

whichever comes first. At a minimum the progress reports shall include: quantitative measurements of the projects progress in meeting the enhancement project success criteria, detailed description of remedial actions taken or proposed, and contact information for the responsible parties.

8. Reporting Program. The Plan shall ensure accountability with a reporting program that includes progress toward goals and success criteria. Include names of responsible parties.
9. Contingency Plan. Describe the contingency plan for failure to meet annual goals.
10. Long-term Protection. Include proof of long-term protection for the restoration site. For private lands this would include conservations easements or other deed restrictions; projects on public lands must be contained in a Desert Wildlife Management Area, Wildlife Habitat Management Area, or other land use protections that will protect the mitigation site and target species.

Section ED: Conformance with BLM Plant Protection Policies

It is BLM policy to salvage yucca and cactus plants (excluding cholla species, genus *Cylindropuntia*) and transplant them to undisturbed sites within project Rights of Way. Staff recommends conformance with policy, as follows:

- a. The project owner shall inventory all plants subject to BLM policies on all NLM lands within the Project Disturbance Area that would be removed or damaged by proposed project construction.
- b. The project owner shall prepare a Protected Plant Salvage Plan in conformance with BLM standards for review and approval by the CPM in consultation with BLM. The plan shall include detailed descriptions of proposed methods to salvage plants; transport them; store them temporarily (as needed); maintain them in temporary storage (i.e., irrigation, shade protection, etc.); proposed transplantation locations and methods for permanent relocation; proposed irrigation and maintenance methods at transplantation sites; and a monitoring plan to verify survivorship and establishment of translocated plants for a minimum of five years.
- c. Prior to initiating any ground-disturbing activities on the project site, the project owner shall implement the Protected Plant Replacement measures as approved by the CPM, in consultation with BLM's State Botanist.

Verification: The Special-Status Plant Impact Avoidance and Minimization Measures shall be incorporated into the BRMIMP as required under Condition of Certification **BIO-7**.

Implementation of the special-status plant impact avoidance and minimization measures shall be reported in the Monthly Compliance Reports prepared by the Designated Botanist. Within 30 days after completion of Project construction, the Project owner shall

provide to the CPM, for review and approval in consultation with the BLM State Botanist, a written construction termination report identifying how measures have been completed.

The Project owner shall submit a monitoring report every year for the life of the project to monitor effectiveness of protection measures for all avoided special-status plants to the CPM and BLM State Botanist. The monitoring report shall include: dates of worker awareness training sessions and attendees, an inventory of the special-status plant occurrences and description of the habitat conditions, an indication of population and habitat quality trends, and description of the remedial action, if warranted and planned for the upcoming year.

Section A. No less than 30 days prior to the start of ground-disturbing activities the Project owner shall submit grading plans and construction drawings depicting the location of Environmentally Sensitive Areas and the Avoidance and Minimization Measures contained in Section A of this Condition. The project owner shall coordinate with the CPM and BLM's Wildlife Biologist to revise and finalize boundaries of the ESAs.

No less than 30 days prior to the start of ground-disturbing activities the Project owner shall submit to the CPM for review and approval, in consultation with the BLM State Botanist, the name and resume of the project's Designated Botanist. If a Designated Botanist needs to be replaced, the specified information of the proposed replacement must be submitted to BLM's Wildlife Biologist and the CPM as soon as possible prior to the termination or release of the Designated Biologist. In an emergency, the project owner shall immediately notify the BLM's Wildlife Biologist and the CPM to discuss the qualifications and approval of a short-term replacement while a permanent Designated Botanist is proposed to BLM's Wildlife Biologist and the CPM and for consideration.

No less than 30 days prior to ground-disturbing activities the Project owner shall submit a Special Status Plant Impact Avoidance and Minimization Plan to the CPM for review and approval, in consultation with the BLM State Botanist. Implementation of the impact avoidance and minimization measures shall be reported in the Monthly Compliance Reports prepared by the Designated Botanist. Within 30 days after completion of Project construction, the Project owner shall provide to the CPM, for review and approval in consultation with the BLM State Botanist, a written construction termination report identifying how measures have been completed.

The Project owner shall submit a monitoring report every year for the life of the project to monitor effectiveness of protection measures for all ESAs to the CPM and BLM State Botanist. The monitoring report shall include: dates of worker awareness training sessions and attendees, an inventory of the special-status plant occurrences and description of the habitat conditions, an indication of population and habitat quality trends, and description of the remedial action, if warranted and planned for the upcoming year. The project owner shall coordinate with the CPM and BLM to revise and finalize monitoring reports and all reports described in this section, and shall specifically report any difficulties in meeting the protection goals and cooperatively develop adaptive measures as needed.

~~**Section B.** Raw GPS data, metadata, and CNDDDB field forms shall be submitted to the CPM within two weeks of the completion of each survey. A preliminary summary of results for the late summer/fall botanical surveys shall also be submitted to the CPM and BLM's State Botanist within two weeks following the completion of the surveys. If surveys are split into more than one period, then a summary letter shall be submitted following each survey period. The Final Summer-Fall Botanical Survey Report, GIS shape files and metadata shall be submitted to the BLM State Botanist and the CPM no less than 30 days prior to the start of ground-disturbing activities. The Final Report shall include a detailed accounting of the acreage of Project impacts to special-status plant occurrences.~~

~~**Section C.** The Project owner shall immediately provide written notification to the CPM, CDFG, USFWS, and BLM if it detects a State- or Federal-Listed Species, or BLM Sensitive Species at any time during its late summer/fall botanical surveys or at any time thereafter through the life of the Project, including conclusion of Project decommissioning.~~

Prior to construction, the project owner shall provide written verification that seed of any special status plants in the Project Disturbance Area have been collected and conveyed to a facility (as described in this measure) and that suitable long-term funding has been provided by the project owner.

~~**Section D.** If compensatory mitigation is required (based upon field survey results and mitigation strategy adopted by the project owner, as described in Sections ~~C~~ and ~~D~~), no less than 30 days prior to the start of ground-disturbing activities, the Project owner shall submit to the CPM Security adequate to acquire compensatory mitigation lands and/or undertake habitat enhancement or restoration activities, as described in this condition.~~

No fewer than 90 days prior to acquisition of compensatory mitigation lands, the Project owner shall submit a formal acquisition proposal and draft Management Plan for the proposed lands to the CPM, with copies to CDFG, USFWS, and BLM, describing the parcels intended for purchase and shall obtain approval from the CPM prior to the acquisition. No fewer than 90 days prior to acquisition of compensatory mitigation lands, the Project owner shall submit to the CPM and obtain CPM approval of any agreements to delegate land acquisition to an approved third party, or to manage compensation lands; such agreement shall be executed and implemented within 18 months of the Energy Commission's certification of the Project.

The Project owner or an approved third party shall complete the acquisition and all required transfers of the compensation lands, and provide written verification to the CPM of such completion no later than 18 months after the start of Project ground-disturbing activities. If NFWF or another approved third party is being used for the acquisition, the Project owner shall ensure that funds needed to accomplish the acquisition are transferred in timely manner to facilitate the planned acquisition and to ensure the land can be acquired and transferred prior to the 18-month deadline. If

habitat enhancement is proposed, no later than six months following the start of ground-disturbing activities, the Project owner shall obtain CPM approval of the final Habitat Enhancement/Restoration Plan, prepared in accordance with Section ~~DC~~, and submit to the CPM or a third party approved by the CPM Security adequate for long-term implementation and monitoring of the Habitat Enhancement/Restoration Plan.

Enhancement/restoration activities shall be initiated no later than 12 months from the start of construction. The implementation phase of the enhancement project shall be completed within five years of initiation. Until completion of the five-year implementation portion of the enhancement action, a report shall be prepared and submitted as part of the Annual Compliance Report. This report shall provide, at a minimum: a summary of activities for the preceding year and a summary of activities for the following year; quantitative measurements of the Project's progress in meeting the enhancement project success criteria; detailed description of remedial actions taken or proposed; and contact information for the responsible parties.

Within 18 months of ground-disturbing activities, the Project owner shall transfer to the CPM or an approved third party the difference between the Security paid and the actual costs of (1) acquiring compensatory mitigation lands, completing initial protection and habitat improvement, and funding the long-term maintenance and management of compensatory mitigation lands; and/or (2) implementing and providing for the long-term protection and monitoring of habitat enhancement or restoration activities.

Section ~~ED~~. The project owner shall coordinate with the CPM and BLM's Wildlife Biologist to revise and finalize all plans and reports named in this section. Verification and reporting shall be as described in BIO-10 and shall be included in reports described therein. Within 90 days after completion of each year of project construction, the project owner shall provide to the CPM verification of the numbers or acreage of plants covered in this Condition (i.e., species named in BLM and County policies) which have been removed or salvaged over the course of the year. Annual revegetation reports described in BIO-10 verification shall include summaries of salvage and planting operations and monitoring results. Compliance reports shall include summaries of written and photographic records of the plan implementation described above. Compliance reports shall be submitted annually for a period not less than 5 years to document irrigation, maintenance, and monitoring results, including plant survival.

Page 6.2-210, Condition of Certification, BIO-18: *RSE has modified BIO-18 to reflect the construction related survey distance recommended by the USFWS and approved by the Commission in the Blythe and Genesis projects. Deletions are shown in ~~strikethrough~~ and additions are in **bold-underline***

BIO-18 The Project owner shall implement the following measures to avoid or minimize Project-related construction impacts to golden eagles.

1. Annual Inventory During Construction. For each year during which construction will occur an inventory shall be conducted to determine if

golden eagle territories occur within ~~one to ten~~ **one** miles of the solar generator site, ~~and generator tie-line alignment, and within two miles of the existing Parker-Blythe #2 transmission line alignment.~~ Survey methods for the inventory shall be as described in the *Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations* (Pagel et al. 2010) or more current guidance from the USFWS.

2. Inventory Data: Data collected during the inventory shall include at least the following: territory status (unknown, vacant, occupied, breeding successful, breeding unsuccessful); nest location, nest elevation; age class of golden eagles observed; nesting chronology; number of young at each visit; digital photographs; and substrate upon which nest is placed.
3. Determination of Unoccupied Territory Status: A nesting territory or inventoried habitat shall be considered unoccupied by golden eagles only after completing at least two full aerial surveys in a single breeding season. ~~In circumstances where ground observation occurs rather than aerial surveys, at least t~~**Two** ground observation periods lasting at least four hours are necessary to designate an inventoried habitat or territory as unoccupied as long as all potential nest sites and alternate nests are visible and monitored. These observation periods shall be at least 30 days apart for an inventory, and at least 30 days apart for monitoring of known territories.
4. Monitoring and Adaptive Management Plan: If an occupied nest (as defined by Pagel et al. 2010) is detected within ~~40 miles of the solar generator site, or generator tie-line alignment, or within two miles the Parker-Blythe #2 transmission line alignment,~~ **one mile** the Project owner shall prepare and implement a Golden Eagle Monitoring and Management Plan for the duration of construction to ensure that Project construction activities do not result in injury or disturbance to golden eagles. The monitoring methods shall be consistent with those described in the *Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations* (Pagel et al. 2010) or more current guidance from the USFWS. The Monitoring and Management Plan shall be prepared in consultation with the USFWS. Triggers for adaptive management shall include any evidence of Project-related disturbance to nesting golden eagles, including but not limited to: agitation behavior (displacement, avoidance, and defense); increased vigilance behavior at nest sites; changes in foraging and feeding behavior, or nest site abandonment. The Monitoring and Management Plan shall include a description of adaptive management actions, which shall include, but not be limited to, cessation of construction activities that are deemed by the Designated Biologist to be the source of golden eagle disturbance.

Verification: No fewer than 30 days from completion of the golden eagle inventory the Project owner shall submit a report to the CPM, Western, CDFG, BLM, and USFWS documenting the results of the inventory.

If an occupied nest is detected within one mile ~~10 miles~~ of the solar generator site, or generator tie-line alignment, or ~~within two miles of~~ the existing Parker-Blythe #2 transmission line alignment, then at least 30 days prior to the start of any pre-construction site mobilization the project owner shall provide the CPM, Western, BLM, CDFG, and USFWS with the final version of the golden eagle monitoring and management plan. This final plan shall have been reviewed and approved by the CPM and Western in consultation with BLM, CDFG, and USFWS. If no occupied nests are detected during the inventory and a plan is not warranted, a letter from USFWS documenting this determination shall be submitted to the CPM and Western at least 10 days prior to the start of any pre-construction site mobilization.

Rice Solar Energy Project

CEC Docket #09-AFC-10

SUBMITTED TO: California Energy Commission

SUBMITTED BY: Rice Solar Energy, LLC

WITH TECHNICAL ASSISTANCE CH2M HILL

DATE: October 15, 2010

TOPIC: Supplementary Information Item #9, Biological Resources
Biological Resources Mitigation Acreage Table and Map

The following is Rice Solar Energy, LLC's (RSE's) Supplementary Information Item (SII) #9, submitted in support of RSE's Application for Certification (AFC) for the Rice Solar Energy Project (RSEP) (09-AFC-10). Table SII9-1 is a complete account of the acreages of desert tortoise habitat that would be affected by construction or operation of the Rice Solar Energy Project, broken down by project subarea, and separating acreages within the project ownership parcel and all other areas (including mostly federal land managed by the BLM). Figure SII9-1, attached, shows the locations of all of the key project components, annotated with their acreages, as calculated using CAD drawings and ArcGIS geographical information systems software. Please note the following:

- The ownership parcel (#1) of 3,325 acres is the property in RSE's control, within which most of the project facilities are sited.
- Total acreage affected (#2) includes areas affected within the ownership parcel (#2a) and outside of the ownership parcel (#2b), including a portion of the generator tie-line that extends for 10 miles between the RSEP project site and the Parker-Blythe #2 transmission line, and the RSEP interconnection switchyard.
- Total acreage affected within the ownership parcel (#2a) includes areas within the permanent project fenceline (#2a1) and also areas that are outside the fenceline but still inside the parcel (#2a2). The former includes the heliostat field, northern administration building, and evaporation ponds. The access road from State Route 62 to the project site is included in this acreage for convenience and because it represents a permanent habitat removal, even though a portion of this road is outside the fenceline. The latter includes the east and west drainage channels and their diffusers or spreaders and also a nearly one mile-long portion of the generator tie-line, with its new access road.
- The mitigation requirement (#3) includes a requirement to replace acreage affected a ratio of one acre replaced to one acre affected (1:1) for acreage within the ownership parcel. Acreage along the generator tie-line is mitigated at a 3:1 ratio of replacement to affected acreage because this area is located on federal land not previously disturbed.
- Acres within the ownership parcel that qualify as mitigation land fit into three categories of different value. The area within 250 feet of the project fenceline is considered to have half

the habitat value of the standard acres because of proximity to the fence, so half of this acreage is deducted from the total available acres (“fence buffer deduction”). The area between the RSEP fenceline and State Route 62 (see Figure SII9-1) is similar considered to have one-half of the habitat value of standard acres because of the proximity to State Route 62, and so half of this acreage is also deducted from the total available acreages (“northern buffer deduction”). All other unaffected acres within the ownership parcel have full acreage value.

The table shows that the mitigation acres required totals is 1,522.2 and that the acreage available within RSE’s ownership parcel is 1,690.7. Therefore, it appears feasible to meet all of RSEP’s biological resources mitigation obligations using the property adjacent to the project site within the ownership parcel (as long as other requirements for a conservation easement and endowment to manage are met).

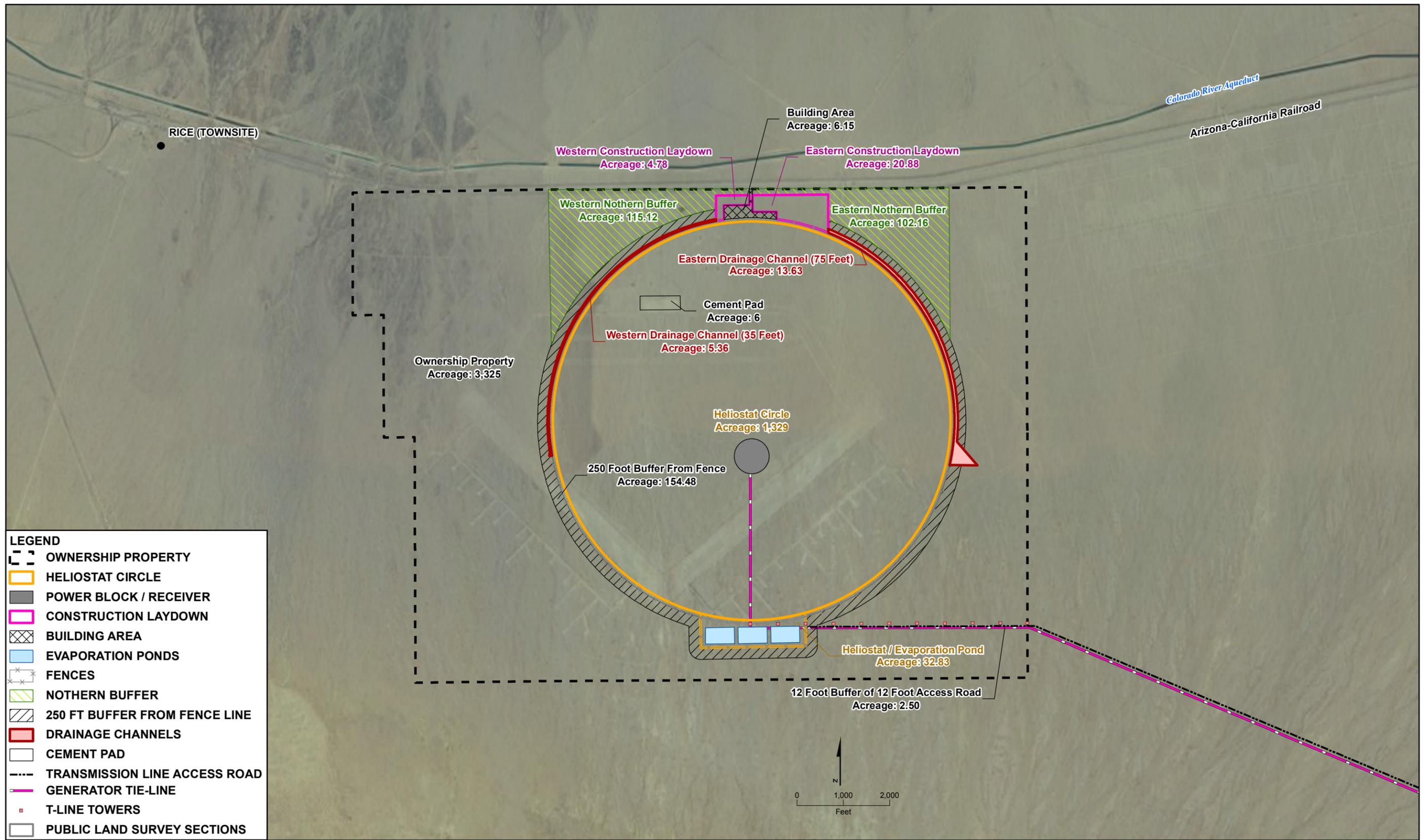
TABLE SII9-1
Acreage Analysis of Desert Tortoise Mitigation Land, Rice Solar Energy Project

Item	Calculation	Acres
1. Total Ownership Parcel	CAD Drawing	3,325.0
2. Total Acreage Affected		
2a. Within Ownership Parcel Tortoise Habitat		
2a1. Within permanent fenceline		
Heliostat circle only	CAD drawing	1,329.0
Evaporation ponds and pond fencing	CAD drawing	32.8
North Administration Building and Road	CAD drawing	6.2
Subtract concrete apron (not DT habitat)	870' x 300' per aerial photo	-6.0
		1,362.0
2a2. Outside Permanent Fenceline/Inside Parcel		
East Construction Laydown	CAD drawing	20.9
West Construction Laydown	CAD drawing	4.8
East channels outside fence	75' wide channel + diffuser area	13.6
West channels outside fence	35' wide channel + diffuser area	5.4
Transmission line access road	24' (road+buffer) x 5,065 feet	2.8
Transmission Towers	100' x 100' area x 9 towers	2.1
		49.5
2b. Outside of Ownership Parcel Tortoise (BLM and other private)		
Transmission line access road	24' (road+buffer) x 3.6 miles	10.5
Transmission towers	100' x 100' area x 81 towers	18.6
Transmission line pull sites	100' x 200' x 10 sites	4.6
Switchyard + 50-foot buffer	400' x 265' plus 50-foot buffer	3.3
		36.9
Total Desert Tortoise Habitat Affected		1,448.4

TABLE SII9-1
Acreage Analysis of Desert Tortoise Mitigation Land, Rice Solar Energy Project

Item	Calculation	Acres
3. Mitigation Requirement		
Private land, heliostat circle, road, 9 towers	1:1 ratio (2a1+2a2)	1,411.5
Public land, switchyard, pull sites, 81 towers	3:1 ratio (2b x 3)	110.7
Total Mitigation Requirement		1,522.2
4. Mitigation Acreage Available		
Total acres minus mitigation required	#1 - #3	1,876.6
Fence buffer deduction	-154.48 acres x 0.5	-77.2
Northern buffer deduction	-217.28 acres x 0.5	-108.6
Total Mitigation Acreage Available		1,690.7
5. Acres Surplus to Requirement	#4 - #3	168.5

Note: Does not include a public access area, which may be required per CUL-11.



**FIGURE SI19-1
MITIGATION PARCEL AND
TORTOISE IMPACT ACREAGES**
RICE SOLAR ENERGY PROJECT
RIVERSIDE COUNTY, CALIFORNIA

This map was compiled from various scale source data and maps and is intended for use as only an approximate representation of actual locations.

STATE OF CALIFORNIA

Energy Resources
Conservation and Development Commission

In the Matter of:

Application For Certification for the
RICE SOLAR ENERGY PROJECT

DOCKET NO. 09-AFC-10

DECLARATION OF
Doug Davy

I, Doug Davy, declare as follows:

1. I am presently employed by CH2M HILL, as a Program Manager.
2. A copy of my professional qualifications and experience is included herewith (Attachment A to Testimony) and is incorporated by reference in this Declaration.
3. The attached testimony relating to Cultural Resources for the Rice Solar Energy Project (California Energy Commission Docket Number 09-AFC-10) was prepared under my direction.
4. It is my professional opinion that the attached prepared testimony is valid and accurate with respect to issues that it addresses.
5. I am personally familiar with the facts and conclusions related in the attached prepared testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct to the best of my knowledge and that this declaration was executed on October 22, 2010.



Doug Davy

I. Name(s): Doug Davy

II. Purpose:

My testimony addresses the subject of Cultural Resources associated with the construction and operation of the Rice Solar Energy Project (09-AFC-10).

III. Qualifications:

Doug Davy: I am presently employed at CH2M HILL and have been for the past 6 years and am presently a Program Manager with that organization. I have a PhD in Archaeology and I have over 24 years of experience in the field of regulatory compliance and project management support for infrastructure development projects. I prepared or assisted in the preparation of the Cultural Resources section of the AFC as well as the post-filing information, data responses, and supplemental filings. A detailed description of my qualifications is contained in the attached resume.

IV. Exhibits:

In addition to this written testimony, I am sponsoring the following exhibits in this proceeding.

Exhibit 1 **Application for Certification Volumes I and II**, dated October 2009, and docketed on October 21, 2009, Section 5.3, Appendix 5.3A-F.

Exhibit 3 **Plan of Development Completion Letter**, dated February 9, 2010, and docketed on February 18, 2010.

Exhibit 4 **Rice Solar Energy, LLC's Response to CEC Staff Data Requests 1 to 168**, dated March 2010, and docketed March 9, 2010, Responses 78 through 88.

Exhibit 9 **Rice Solar Energy, LLC's Response to CEC Staff Workshop Queries 4, 6 - 8 & 11**, dated April 2010, and docketed on April 12, 2010, Responses 6 through 7.

Exhibit 20 **Archival Search on Rice Army Airfield and Camp Rice**, dated May 14, 2010, and docketed on May 27, 2010.

- Exhibit 28 **Rice Solar Energy, LLC's Supplementary Information Item 3 - Draft Historic Property Treatment Plan**, dated June 2010, and docketed June 18, 2010.
- Exhibit 32 **Rice Solar Energy, LLC's Supplementary Information Items 7-11, Additional Information Regarding the Archaeological Features at Rice Army Airfield**, dated July 16, 2010, and docketed on July 16, 2010, Responses 7 through 11.
- Exhibit 36 **Letter from Western Area Power Administration to the California Office of Historic Preservation Regarding Plans to Construct the 150 Megawatt Rice Solar Energy Project**, dated July 13, 2010, and docketed on July 23, 2010.
- Exhibit 40 **Rice Army Airfield Cultural Features Mapbook & Index Map**, dated August 10, 2010, and docketed on August 16, 2010.

V. Opinion and Conclusions:

I have reviewed the Cultural Resources section of the SA/DEIS and with incorporation of the changes suggested below to the Conditions of Certification, the Project will not result in significant Cultural impacts and will comply with all applicable Cultural Resource laws, ordinances, regulations and standards (LORS).

RICE SOLAR ENERGY PROJECT

Applicant's Comment on Staff's Conditions of Certification

The following are the Applicant's comments on the Staff's Conditions of Certification proposed as of October 21, 2010. Staff's changes to the conditions as found in the Staff Assessment are indicated in redline-strikeout format. Applicant's suggested changes to these are indicated with grayscale shading.

SolarReserve suggests replacing Staff's proposed Conditions of Certification CUL-13 and CUL-14 with a new CUL-13. This proposed CUL-13 adopts the approach Staff has taken in CUL-1 to fund mitigation measures that address the effects of several projects on the widely separated individual elements of the Desert Training Center/California-Arizona Maneuver Area (DTC/C-AMA). The condition would require that the project owner make a substantial one-time payment that would endow a fund to be administered by the CEC Staff and Western, in conjunction with the General Patton Memorial Museum. SolarReserve proposes that these funds be earmarked to accomplish the goals of CUL-13 and CUL-14: (1) preparation of a video presentation

that documents DTC/C-AMA, with a special emphasis on airfield use and aircraft training, (2) preparation of a brochure on the same subject, and (3) preparation of an exhibit at the General Patton Memorial Museum regarding the Rice Army Airfield and other DTC/C-AMA airfields and their role in Army desert training during World War II. This approach would allow for the mitigation of the Rice Solar Energy Project's effects on Rice Army Airfield to take into consideration the status of DTC/C-AMA as a collection of properties that collectively form a discontinuous cultural landscape. It would also allow for more direct participation of the General Patton Memorial Museum, which is the local repository for documents and knowledge regarding DTC/C-AMA. This fund could also be used in close coordination with other elements of the Staff's DTC/C-AMA Cultural Landscape Documentation and Possible NRHP Nomination Program (DTCCCL Program).

PROPOSED CONDITIONS OF CERTIFICATION

CUL-1 DESERT TRAINING CENTER CALIFORNIA-ARIZONA MANEUVER AREA CULTURAL LANDSCAPE (DTCCCL) PROGRAM

The project owner shall contribute to a special fund set up by the Energy Commission and/or Western to finance the DTC/C-AMA Cultural Landscape Documentation and Possible NRHP Nomination Program (DTCCCL Program) presented in the RSEP SA/DEIS.

The amount of the contribution shall be \$22 per acre that the project encloses or otherwise disturbs. Any additional contingency contribution is not to exceed an amount totaling 20% of the original contribution. The contribution to the special fund may be made in installments, with the approval of the Compliance Project Manager (CPM), with the first installment to constitute 1/3 of the total original contribution amount.

If a project is not certified, a project owner does not build the project, or for any reason deemed acceptable by the CPM, a project owner does not participate in funding the DTCCCL Program, the other project owner(s) may consult with the CPM to adjust the scale of the DTCCCL Program research activities to match available funding. A project owner that funds the DTCCCL Program and then withdraws shall be able to receive a refund of their contributions on a prorated basis.

Verification:

Within two weeks (14 days) of the receipt of an invoice from the Energy Commission or BLM, the project owner shall contribute the entire amount of the required contribution or the first of three installments, equal to one-third of the total contribution amount, to the established funding vehicle for the Program. The delivery dates for the remaining installments shall be determined by the CPM, based on program requirements.

The project owner shall provide a copy of the notice of successful transfer of funds for any payment or installment to the DTCCCL fund to the CPM within 10 days of receipt.

CUL-2 CULTURAL RESOURCES PERSONNEL

Prior to the start of ground disturbance (includes preconstruction site mobilization and construction grading, boring, and trenching, as defined in the General Conditions for this project), the project owner shall obtain the services of a Cultural Resources Specialist (CRS) and one or more alternate CRSs, if alternates are needed. The CRS shall manage all monitoring, mitigation, curation, and reporting activities in accordance with the Conditions of Certification (Conditions).

The CRS may obtain the services of Cultural Resources Monitors (CRMs), as needed, to assist in monitoring, mitigation, and curation activities. The project owner shall ensure that the CRS implements the cultural resources conditions providing for data recovery from known historical resources and makes recommendations regarding the eligibility for listing in the California Register of Historical Resources (CRHR) of any cultural resources that are newly discovered or that may be affected in an unanticipated manner. No ground disturbance shall occur prior to Compliance Project Manager (CPM) approval of the CRS and alternates, unless such activities are specifically approved by the CPM. Approval of a CRS may be denied or revoked for reasons including, but not limited to, non-compliance on this or other Energy Commission projects.

Cultural Resources Specialist

The resumes for the CRS and alternate(s) shall include information demonstrating, to the satisfaction of the CPM, that their training and backgrounds conform to the U.S. Secretary of Interior's Professional Qualifications Standards, as published in Title 36, Code of Federal Regulations, part 61. In addition, the CRS shall have the following qualifications:

1. A background in anthropology and prehistoric archaeology;
2. At least 10 years of archaeological resource mitigation and field experience, with at least 3 of those years in California; and
3. At least 3 years of experience in a decision-making capacity on cultural resources projects, with at least 1 of those years in California, and the appropriate training and experience to knowledgeably make recommendations regarding the significance of cultural resources.

The project owner shall ensure that the CRS obtains the services of a qualified historical archaeologist to conduct the research specified in **CUL-9**. The Project Historical Archaeologist's (PHA) training and background must meet the U.S. Secretary of Interior's Professional Qualifications Standards for historical archaeology, as published in Title 36, Code of Federal Regulations, part 61.

The resumes of the CRS, alternate CRS, and PHA shall include the names and telephone numbers of contacts familiar with the work of these persons on projects referenced in the resumes and demonstrate to the satisfaction of the CPM that these persons have the appropriate training and experience to undertake the required

research. The project owner may name and hire the CRS, alternate CRS, and PHA prior to certification.

Field Crew Members and Cultural Resources Monitors

CRMs and field crew members, including the Special Interest Monitor (SIM)¹, shall have the following qualifications:

1. A B.S. or B.A. degree in anthropology, archaeology, historical archaeology, or a related field, and one year experience monitoring in California; or
2. An A.S. or A.A. degree in anthropology, archaeology, historical archaeology, or a related field, and four years experience monitoring in California; or
3. Enrollment in upper division classes pursuing a degree in the fields of anthropology, archaeology, historical archaeology, or a related field, and two years of monitoring experience in California.

Verification:

1. Preferably at least 120 days, but in any event no less than 75 days prior to the start of ground disturbance, the project owner shall submit the resumes for the CRS, the alternate CRS(s) if desired, and the PHA to the CPM for review and approval.
2. At least 65 days prior to the start of data recovery on known archaeological sites, the project owner shall confirm in writing to the CPM that the approved CRS (or alternate CRS) and PHA will be available for on-site work and are prepared to implement the cultural resources conditions of certification.
3. At least 10 days prior to a termination or release of the CRS, or within 10 days after the resignation of a CRS, the project owner shall submit the resume of the proposed new CRS to the CPM for review and approval. At the same time, the project owner shall also provide the AFC and all cultural resources documents, field notes, photographs, and other cultural resources materials generated by the project to the proposed new CRS. If no alternate CRS is available to assume the duties of the CRS, a monitor may temporarily serve in place of a CRS, for a maximum of three days, to allow ground disturbance to continue uninterrupted. If cultural resources are discovered, ground disturbance shall be halted until there is a CRS or alternate CRS to make a recommendation regarding significance.
4. At least 20 days prior to data recovery on known archaeological sites, the CRS shall provide a letter to the CPM for review and approval, naming anticipated field crew members for the project, providing resumes or other proof of qualifications, and attesting that the identified field crew members meet the minimum qualifications for cultural resources data recovery required by this Condition.

¹ The SIM may observe without meeting the qualifications identified in this subsection, but recommendations for the treatment of any unanticipated finds will be considered advisory only and will need approval from the CRS or alternate CRS to be implemented. SIMs without sufficient professional qualifications cannot act as or in place of a CRM.

5. At least 20 days prior to ground disturbance, the CRS shall provide a letter to the CPM for review and approval, naming anticipated CRMs for the project providing resumes or other proof of qualifications, and attesting that the identified CRMs meet the minimum qualifications for cultural resources monitoring required by this Condition.
6. At least 5 days prior to additional CRMs beginning on-site duties during the project, the CRS shall provide letters to the CPM for review and approval, identifying the new CRMs, providing resumes or other proof of qualifications, and attesting to their qualifications.

CUL-3 PROJECT DOCUMENTATION FOR CULTURAL RESOURCES PERSONNEL

Prior to the start of ground disturbance, the project owner shall provide the CRS and PHA with copies of the AFC, data responses, confidential cultural resources documents, Staff Assessment (SA), and any subsequent revised or supplemental SA. The project owner shall also provide the CRS, PHA, and CPM with maps and drawings showing the footprints of the power plant, all linear facility routes, all access roads, and all laydown areas. Maps shall include the appropriate USGS quadrangles and maps at an appropriate scale (e.g., 1:2400 or 1" = 200') for plotting cultural features or materials. If the CRS requests enlargements or strip maps for linear facility routes, the project owner shall provide copies to the CRS and CPM. The CPM shall review map submittals and, in consultation with the CRS, approve those that are appropriate for use in cultural resources planning activities. No ground disturbance shall occur prior to CPM approval of maps and drawings, unless such activities are specifically approved by the CPM.

If construction of the project would proceed in phases, maps and drawings not previously provided shall be provided to the CRS, PHA, and CPM prior to the start of each phase. Written notice identifying the proposed schedule of each project phase shall be provided to the CRS and CPM.

Until ground disturbance is completed, the project construction manager shall provide the CRS and CPM with a schedule of project activities for the following week, including the identification of area(s) where ground disturbance will occur. The project owner shall notify the CRS and CPM of any changes to the schedule of construction phases.

Verification:

1. Preferably at least 115 days, but in any event no less than 60 days prior to the start of ground disturbance, the project owner shall provide the CRS, PHA, and CPM with copies of the AFC, data responses, confidential cultural resources documents, the Staff Assessment (SA), and any revised or supplemental SAs. The project owner shall also provide the CRS, PHA, and CPM with the subject maps and drawings. Staff, in consultation with the CRS, and PHA, will review and approve maps and drawings as suitable for cultural resources monitoring and data recovery

activities.

2. At least 15 days prior to the start of ground disturbance, if there are changes to any project-related footprint, the project owner shall provide revised maps and drawings for the changes to the CRS, PHA, and CPM.
3. At least 15 days prior to the start of each phase of a phased project, the project owner shall submit the appropriate maps and drawings, if not previously provided, to the CRS, PHA, and CPM.
4. Weekly, during ground disturbance, a schedule of anticipated following week's project activity shall be provided to the CRS and CPM by letter, e-mail, or fax.
5. Within 5 days of changing the scheduling of phases of a phased project, the project owner shall provide written notice of the changes to the CRS and CPM.

CUL-4 CULTURAL RESOURCES MONITORING AND MITIGATION PLAN

Prior to the start of ground disturbance, the project owner shall submit the Cultural Resources Monitoring and Mitigation Plan (CRMMP), as prepared by or under the direction of the CRS, with the contributions of the PHA, to the CPM for review and approval. The authors' name(s) shall appear on the title page of the CRMMP. The CRMMP shall specify the impact mitigation protocols for all known cultural resources and identify general and specific measures to minimize potential impacts to all other cultural resources, including those discovered during construction. Implementation of the CRMMP shall be the responsibility of the CRS and the project owner. Copies of the CRMMP shall reside with the CRS, alternate CRS, PHA, each CRM, and the project owner's on-site construction manager. No ground disturbance shall occur prior to CPM approval of the CRMMP, unless such activities are specifically approved by the CPM. Prior to certification, the project owner may have the CRS, alternate CRS, and PHA complete and submit the CRMMP to the CPM for review and approval, except for those portions to be contributed by the DTCCCL programs.

The CRMMP shall include, but is not limited to, the elements and measures listed below.

1. The following statement shall be included in the Introduction: "Any discussion, summary, or paraphrasing of the Conditions of Certification in this CRMMP is intended as general guidance and as an aid to the user in understanding the Conditions and their implementation. The conditions, as written in the Commission Decision, shall supersede any summarization, description, or interpretation of the conditions in the CRMMP. The Cultural Resources Conditions of Certification from the Commission Decision are contained in Appendix A."
2. The duties of the CRS shall be fully discussed, including coordination duties with respect to the completion of the Desert Training Center California-Arizona Maneuver Area Cultural Landscape (DTCCCL) documentation and possible NRHP nomination

program, and oversight/management duties with respect to site evaluation, data collection, monitoring, and reporting at both known prehistoric and historic-period archaeological sites and any CRHR-eligible (as determined by the CPM) prehistoric and historic-period archaeological sites discovered during construction.

3. A general research design shall be developed that:
 - a. Charts a timeline of all research activities, including those coordinated under the DTCCCL documentation and possible NRHP nomination program;
 - b. Recapitulates the existing historic contexts developed in the DTCCCL historic context and adds to these the additional context of the non-military, historic-period occupation and use of the Rice Valley, to create a comprehensive historic context for the RSEP vicinity;
 - c. Poses archaeological research questions and testable hypotheses specifically applicable to the archaeological resource types known for Rice Valley, based on the research questions developed under the DTCCCL research and on the archaeological and historical literature pertinent to Rice Valley; and
 - d. Clearly articulates why it is in the public interest to address the research questions that it poses.
4. Protocols, consistent with the guidance provided in **CUL-9**, shall be specified for the treatment of known and newly discovered prehistoric and historic-period archaeological resource types.
5. Artifact collection, retention/disposal, and curation policies shall be discussed, as related to the research questions formulated in the research design. These policies shall apply to cultural resources materials and documentation resulting from evaluation and data recovery at both known prehistoric and historic-period archaeological sites and any CRHR- or NRHP-eligible (as determined by the CPM) prehistoric and historic-period archaeological sites discovered during construction. A prescriptive treatment plan may be included in the CRMMP for limited data types.
6. The implementation sequence and the estimated time frames needed to accomplish all project-related tasks prior to and during the ground-disturbance and post-ground-disturbance analysis phases of the project shall be specified, taking into consideration any pre-construction ground disturbances that may require biological monitoring.
7. Person(s) expected to perform each of the tasks, their responsibilities, and the reporting relationships between project construction management and the mitigation and monitoring team shall be identified.
8. The manner in which Native American observers or monitors will be included, ~~in addition to their roles in the activities required under CUL-1;~~ the procedures to be used to select them; and their roles and responsibilities shall be described.
9. All impact-avoidance measures (such as flagging or fencing) to prohibit or otherwise restrict access to sensitive resource areas that are to be avoided during ground disturbance, construction, and/or operation shall be described. Any areas where these measures are to be implemented shall be identified. The description shall

address how these measures would be implemented prior to the start of ground disturbance and how long they would be needed to protect the resources from project-related impacts.

10. The commitment to record on Department of Parks and Recreation (DPR) 523 forms, to map, and to photograph all encountered cultural resources over 50 years of age shall be stated. In addition, the commitment to curate all archaeological materials retained as a result of the archaeological investigations (survey, testing, data recovery), in accordance with the California State Historical Resources Commission's Guidelines for the Curation of Archaeological Collections, into a retrievable storage collection in a public repository or museum shall be stated.
11. The commitment of the project owner to pay all curation fees for artifacts recovered and for related documentation produced during cultural resources investigations conducted for the project shall be stated. The project owner shall identify a curation facility that could accept cultural resources materials resulting from RSEP cultural resources investigations.
12. The CRS shall attest to having access to equipment and supplies necessary for site mapping, photography, and recovery of all cultural resource materials (that cannot be treated prescriptively) from known CRHR-eligible archaeological sites and from CRHR-eligible sites that are encountered during ground disturbance .
13. The contents, format, and review and approval process of the final Cultural Resource Report (CRR) shall be described.

Verification:

1. Preferably at least 90 days, but in any event no less than 30 days prior to the start of ~~ground disturbance~~site mobilization, the project owner shall submit the CRMMP to the CPM for review and approval.
2. At least 20 days prior to the start of ~~ground disturbance~~site mobilization, in a letter to the CPM, the project owner shall agree to pay curation fees for any materials generated or collected as a result of the archaeological investigations (survey, testing, data recovery).
3. At least 30 days prior to the initiation of ~~ground disturbance~~site mobilization, the project owner shall provide to the CPM a copy of a letter from a curation facility that meets the standards stated in the California State Historical Resources Commission's Guidelines for the Curation of Archaeological Collections, stating the facility's willingness and ability to receive the materials generated by RSEP cultural resources activities and requiring curation. Any agreements concerning curation will be retained and available for audit for the life of the project.

CUL-5 CULTURAL RESOURCES REPORT (CRR)

The project owner shall submit the final Cultural Resources Report (CRR) to the CPM for review and approval and to Western's archaeologist for review and comment. The

final CRR shall be written by or under the direction of the CRS. The final CRR shall report on all field activities including dates, times and locations, results, samplings, and analyses. All survey reports, revised and final Department of Parks and Recreation (DPR) 523 forms, data recovery reports, and any additional research reports not previously submitted to the California Historical Resource Information System (CHRIS) and the State Historic Preservation Officer (SHPO) shall be included as appendices to the final CRR.

If the project owner requests a suspension of ground disturbance and/or construction activities, then a draft CRR that covers all cultural resources activities associated with the project shall be prepared by the CRS and submitted to the CPM and to Western's archaeologist for review and approval on the same day as the suspension/extension request. The draft CRR shall be retained at the project site in a secure facility until ground disturbance and/or construction resumes or the project is withdrawn. If the project is withdrawn, then a final CRR shall be submitted to the CPM for review and approval at the same time as the withdrawal request.

Verification:

1. Within 30 days after requesting a suspension of construction activities, the project owner shall submit a draft CRR to the CPM for review and approval.
2. Within 180 days after completion of ground disturbance (including landscaping), the project owner shall submit the final CRR to the CPM for review and approval and to the BLM Palm Springs archaeologist and Western's archaeologist for review and comment. If any reports have previously been sent to the CHRIS, then receipt letters from the CHRIS or other verification of receipt shall be included in an appendix.
3. Within 10 days after the CPM and Western's archaeologist approve the CRR, the project owner shall provide documentation to the CPM confirming that copies of the final CRR have been provided to the SHPO, the CHRIS, the curating institution, if archaeological materials were collected, and to the Tribal Chairpersons of any Native American groups requesting copies of project-related reports.

CUL-6 WORKER ENVIRONMENTAL AWARENESS PROGRAM (WEAP)

Prior to and for the duration of ground disturbance, the project owner shall provide Worker Environmental Awareness Program (WEAP) training to all new workers within their first week of employment at the project site, along the linear facilities routes, and at laydown areas, roads, and other ancillary areas. The training shall be prepared by the CRS, may be conducted by any member of the archaeological team, and may be presented in the form of a video. The CRS shall be available (by telephone or in person) to answer questions posed by employees. The training may be discontinued when ground disturbance is completed or suspended, but must be resumed when ground disturbance, such as landscaping, resumes.

The training shall include:

1. A discussion of applicable laws and penalties under the law;
2. Samples or visuals of artifacts that might be found in the project vicinity;
3. A discussion of what such artifacts may look like when partially buried, or wholly buried and then freshly exposed;
4. A discussion of what prehistoric and historical archaeological deposits look like at the surface and when exposed during construction, and the range of variation in the appearance of such deposits;
5. Instruction that the CRS, alternate CRS, and CRMs have the authority to halt ground disturbance in the area of a discovery to an extent sufficient to ensure that the resource is protected from further impacts, as determined by the CRS;
6. Instruction that employees are to halt work on their own in the vicinity of a potential cultural resources discovery and shall contact their supervisor and the CRS or CRM, and that redirection of work would be determined by the construction supervisor and the CRS;
7. An informational brochure that identifies reporting procedures in the event of a discovery;
8. An acknowledgement form signed by each worker indicating that they have received the training; and
9. A sticker that shall be placed on hard hats indicating that environmental training has been completed.
10. No ground disturbance shall occur prior to implementation of the WEAP program, unless such activities are specifically approved by the CPM.

Verification:

1. At least 30 days prior to the beginning of ground disturbance, the CRS shall provide the training program draft text and graphics and the informational brochure to the CPM for review and approval.
2. At least 15 days prior to the beginning of ground disturbance, the CPM will provide the project owner with a WEAP Training Acknowledgement form for each WEAP trained worker to sign.
3. Monthly, until ground disturbance is completed, the project owner shall provide, in the Monthly Compliance Report (MCR), the WEAP Training Acknowledgement forms of workers who have completed the training in the prior month and a running total of all persons who have completed training to date.

CUL-7 CONSTRUCTION MONITORING PROGRAM

The project owner shall ensure that the CRS, alternate CRS, or CRMs shall monitor, full time, all ground disturbance, to prevent construction impacts to undiscovered resources and to ensure that known resources are not impacted in an unanticipated manner.

Consistent with the recommendations of the County of Riverside, a Special Interest Monitor (SIM), designated by the George S. Patton Memorial Museum, shall monitor all ground disturbance, consistent with the actions of a CRM, but shall only have the authority to halt construction or assume full responsibilities as a CRM if he/she meets the qualification requirements, as designated in CUL-2. Otherwise, any recommendations are advisory only and must be approved by the CRS or alternate CRS.

Full-time archaeological monitoring for this project shall include the archaeological monitoring of ground-disturbing activities by approved CRS or CPM in the areas specified, for as long as the activities are ongoing. Where excavation equipment is actively removing dirt and hauling the excavated material farther than fifty feet from the location of active excavation, full-time archaeological monitoring shall require at least two monitors per excavation area. In this circumstance, one monitor shall observe the location of active excavation and a second monitor shall inspect the dumped material. For excavation areas where the excavated material is dumped no farther than fifty feet from the location of active excavation, one monitor shall both observe the location of active excavation and inspect the dumped material. The research design in the CRMMP shall govern the collection, treatment, retention/disposal, and curation of any archaeological materials encountered.

On forms provided by the CPM, CRMs shall keep a daily log of any monitoring and other cultural resources activities and any instances of noncompliance with the Conditions and/or applicable LORS. Copies of the daily monitoring logs shall be provided by the CRS to the CPM, if requested by the CPM. From these logs, the CRS shall compile a monthly monitoring summary report to be included in the MCR. If there are no monitoring activities, the summary report shall specify why monitoring has been suspended.

The CRS or alternate CRS shall report daily to the CPM on the status of the project's cultural resources-related activities, unless reducing or ending daily reporting is requested by the CRS and approved by the CPM. In the event that the CRS believes that the current level of monitoring is not appropriate in certain locations, a letter or e-mail detailing the justification for changing the level of monitoring shall be provided to the CPM for review and approval prior to any change in the level of monitoring. The CRS, at his or her discretion, or at the request of the CPM, may informally discuss cultural resources monitoring and mitigation activities with Energy Commission technical staff.

Cultural resources monitoring activities are the responsibility of the CRS. Any interference with monitoring activities, removal of a monitor from duties assigned by the CRS, or direction to a monitor to relocate monitoring activities by anyone other than the CRS shall be considered non-compliance with these Conditions conditions of certification.

Upon becoming aware of any incidents of non-compliance with the Conditions and/or applicable LORS, the CRS and/or the project owner shall notify the CPM by telephone

or e-mail within 24 hours. The CRS shall also recommend corrective action to resolve the problem or achieve compliance with the Conditions. When the issue is resolved, the CRS shall write a report describing the issue, the resolution of the issue, and the effectiveness of the resolution measures. This report shall be provided in the next MCR for the review of the CPM.

Verification:

1. At least 30 days prior to the start of ground disturbance, the CPM shall provide to the CRS an electronic copy of a form to be used as a daily monitoring log.
2. Monthly, while monitoring is on-going, the project owner shall include, in each MCR, a copy of the monthly summary report of cultural resources-related monitoring prepared by the CRS and shall attach any new DPR 523A forms completed for finds treated prescriptively, as specified in the CRMMP.
3. At least 24 hours prior to implementing a proposed change in monitoring level, the project owner shall submit to the CPM, for review and approval, a letter or e-mail (or some other form of communication acceptable to the CPM) detailing the CRS's justification for changing the monitoring level.
4. Daily, as long as no cultural resources are found, the CRS shall provide a statement that "no cultural resources over 50 years of age were discovered" to the CPM as an e-mail or in some other form of communication acceptable to the CPM.
6. At least 24 hours prior to reducing or ending daily reporting, the project owner shall submit to the CPM, for review and approval, a letter or e-mail (or some other form of communication acceptable to the CPM) detailing the CRS's justification for reducing or ending daily reporting.
7. No later than 30 days following the discovery of any Native American cultural materials, the project owner shall submit, to the CPM, copies of the information transmittal letters sent to the Chairpersons of the Native American tribes or groups who requested the information. Additionally, the project owner shall submit to the CPM copies of letters of transmittal for all subsequent responses to Native American requests for notification, consultation, and reports and records.
8. The project owner shall submit to the CPM copies of any comments or information provided by Native Americans in response to the project owner's transmittals of information within 15 days of receipt,

CUL-8 AUTHORITY TO HALT CONSTRUCTION; TREATMENT OF DISCOVERIES

The project owner shall grant authority to halt ground disturbance to the CRS, alternate CRS, PHA, and the CRMs in the event of a discovery. Redirection of ground disturbance shall be accomplished under the direction of the construction supervisor in consultation with the CRS.

If human remains are found, the project owner shall follow the requirements of the State Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98(b). The Riverside County Coroner shall be notified and remains shall be left in place and free from disturbance until the final decision as to the treatment and their disposition has been made. If the remains are determined to be Native American, the Native American Heritage Commission (NAHC) shall be contacted within the period specified by law. Subsequently, the NAHC shall identify the "Most Likely Descendant." The Most Likely Descendant shall then make recommendations and engage in consultation concerning the treatment of the remains. Human remains from other ethnic/cultural groups with recognized historical associations to the project area shall also be subject to consultation among appropriate interested parties, CPM, Riverside County, and federal agency representatives (if the find occurs on federal public lands).

~~In the event that~~For unanticipated finds, excluding human remains, **if** a cultural resource over 50 years of age is found (or if younger, determined exceptionally significant by the CPM), or impacts to such a resource can be anticipated, ground disturbance shall be halted within a minimum of 100 feet of the find or redirected in the immediate vicinity of the discovery sufficient to ensure that the resource is protected from further impacts. Monitoring and daily reporting, as provided in other conditions, shall continue during the project's ground-disturbing activities elsewhere. The halting or redirection of ground disturbance shall remain in effect until the CRS has visited the discovery, and all of the following have occurred:

1. The CRS has notified the project owner and the CPM has been notified within 24 hours of the discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 AM on Friday and 8:00 AM on Sunday morning, including a description of the discovery (or changes in character or attributes), the action taken (i.e., work stoppage or redirection), a recommendation of CRHR eligibility, and recommendations for data recovery from any cultural resources discoveries, whether or not a determination of CRHR eligibility has been made.
2. If the discovery would be of interest to Native Americans, the CRS has notified all Native American groups that expressed a desire to be notified in the event of such a discovery.
3. The CRS has completed field notes, measurements, and photography for a DPR 523 "Primary" form. Unless the find can be treated prescriptively, as specified in the CRMMP, the "Description" entry of the DPR 523 "Primary" form shall include a recommendation on the CRHR eligibility of the discovery. The project owner shall submit completed forms to the CPM.
4. The CRS, the project owner, and the CPM have conferred, and the CPM has concurred with the recommended eligibility of the discovery and approved the CRS's proposed data recovery plan, if any, including the curation of the artifacts, or other appropriate mitigation; and any necessary data recovery and mitigation have been completed.

Verification:

1. At least 30 days prior to the start of ground disturbance, the project owner shall provide the CPM and CRS with a letter confirming that the CRS, alternate CRS, PHA, and CRMs have the authority to halt ground disturbance in the vicinity of a cultural resources discovery, and that the project owner shall ensure that the CRS notifies the CPM within 24 hours of a discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 AM on Friday and 8:00 AM on Sunday morning.
2. Within 48 hours of the discovery of a resource of interest to Native Americans, the project owner shall ensure that the CRS notifies all Native American groups that expressed a desire to be notified in the event of such a discovery.
3. Unless the discovery can be treated prescriptively, as specified in the CRMMP, completed DPR 523 forms for resources newly discovered during ground disturbance shall be submitted to the CPM for review and approval no later than 24 hours following the notification of the CPM, or 48 hours following the completion of data recordation/recovery, whichever the CRS decides is more appropriate for the subject cultural resource.

CUL-9 DATA RECOVERY FOR RICE ARMY AIR FIELD AND CAMP RICE FEATURES

Prior to the start of ground disturbance, the project owner shall ensure that **records feature forms** for all **298** historic-period features **at Rice Army Airfield and Camp Rice** be upgraded **completed**. The focus of the recordation upgrade is to recover any additional data associated with these features before they are destroyed during construction. A plan shall specify in detail the location recordation equipment and methods to be used and describe any anticipated post-processing of the data. The project owner shall then ensure that the CRS, the PHA, and/or archaeological team members implement the plan, if allowed by the CPM, which shall include, but is not limited to the following tasks:

1. The project owner shall hire a PHA with the qualifications described in **CUL-2** to supervise the field work.
2. The project owner shall ensure that, prior to beginning the field work, the PHA and all field crew members are trained by the DTCCCL Historical Archaeologist, or equivalent qualified person approved by the CPM and hired by the project owner should the DTCCCL Historical Archaeologist not be available, **to identify the specific landform for each site**; in the identification, analysis and interpretation of the artifacts, environmental modifications, and trash disposal patterns associated with the early phases of WWII land-based U.S. **armyArmy** activities, as researched and detailed by the DTCCCL PI-Historian and the DTCCCL Historical Archaeologist.
3. The project owner shall ensure that, prior to beginning the field work, the field crew

members are also trained in the consistent and accurate identification of the full range of late nineteenth and early-to-mid-twentieth-century can, bottle, and ceramic diagnostic traits.

4. The project owner shall ensure that the original site map shall be updated to include at minimum: landform features such as small drainages, any man-made features, the limits of any artifact concentrations and features (previously known and newly found in the ~~metal detector~~ geophysical survey), using **geographic positioning system location** ~~recording equipment that has the latest technology~~ with sub-meter accuracy **capable of recording locational data in a standard geo-reference grid coordinate systems** (such as UTM 11 North or California Teale Albers).
5. The project owner shall ensure that a detailed in-field analysis of ~~a~~ a representative sample of diagnostic artifacts shall be completed, documenting the measurements and the types of seams and closures for each bottle, and the measurements, seams, closure, and opening method for all cans. Photographs shall be taken of maker's marks on bottles, any text or designs on bottles and cans, and of decorative patterns and maker's marks on ceramics. Artifacts shall not be collected.
6. The project owner shall ensure a systematic ~~metal detector~~ geophysical survey of portions of the airfield be completed with inclusive coverage of the northern end of the site, where most of the military activities occurred, to identify and map the distribution of near-surface and buried materials/features. at each site, and that each "hit" is investigated. All artifacts and features thus found must be mapped, measured, photographed, and fully described in writing. This survey shall be conducted with a mobile electromagnetic instrument and high-resolution GPS unit, measuring both conductivity and magnetic susceptibility (metal detection).
7. The project owner shall ensure that ~~all structures are mapped, measured, photographed, and fully described in writing, and that all associated~~ features having subsurface elements, including those identified in the geophysical survey, are excavated by a qualified historical archaeologist. All features and contents must be mapped, measured, photographed, and fully described in writing.
8. The project owner shall ensure that the details of what is found at each ~~site~~ **Rice Army Airfield feature or new site** shall be presented in a letter report from the CRS or PHA which shall serve as a preliminary report, that details what was found at each ~~site~~ feature, as follows:
 - a. Letter reports may address one ~~site~~ feature or multiple ~~sites~~ features depending on the needs of the CRS; and
 - b. The letter report shall be a concise document ~~that~~ that provides a description of the schedule and methods used in the field effort, ~~a~~ preliminary tally of the numbers and types of features and deposits that were found, a discussion of the potential range of error for that tally, and ~~a~~ map showing the location of collection and/or excavation units, including topographic contours and the ~~site~~ feature

landforms.

- c. The letter report shall make a recommendation on whether each sitefeature is a contributor to the DTTCL.
9. The project owner shall ensure that the data collected from the field work shall be provided to the DTCCL Historical Archaeologist to assist in the determination of which, if any, of the historic-period sites are contributing elements to the DTCCL.
10. The project owner shall ensure that the PHA analyzes all recovered data and writes or supervisors the writing of a comprehensive final report. This report shall be included in the CRR (**CUL-5**). Relevant portions of the information gathered **shall** **may** be included in the possible NRHP nomination for the DTCCL (funded by **CUL-1**).

Verification:

1. At least 90 days prior to ground disturbance, the project owner shall notify the CPM that mapping and upgraded in-field artifact analysis has ensued.
2. Within one week of completing data recovery at a site, the project owner shall submit ~~to the CPM for review and approval~~ a letter report written by the CRS to the CPM for review and approval, evidencing that the field portion of data recovery at ~~each site~~particular features ~~has~~ has been completed. When the CPM approves the letter report, ground disturbance may begin at the sitefeature location(s) that are the subject of the letter report.

CUL-10 COMPLIANCE COORDINATION WITH FEDERAL SECTION 106 MOA

If stipulations in the RSEP Section 106 Memorandum of Agreement (MOA), should such a document be prepared and executed, conflict in a mutually exclusive manner with or precisely duplicate the conditions of certification in the Energy Commission Decision, the MOA provisions shall take precedence. Where provisions for the implementation of historic preservation treatments in the conditions of certification are in addition to or exceed such provisions in the MOA, the applicant shall implement treatment in a manner that fulfills both the provisions of the MOA and the conditions of certification. Where the applicant believes that a mutually exclusive conflict exists between these conditions and the provisions in the MOA, or that the said conditions and provisions appear to require a precisely duplicative effort, the applicant shall submit, for the review and approval of the CPM, formal correspondence that states the applicant's determination that such a conflict or effort exists and provides evidentiary support for that determination. Where provisions in the conditions of compliance appear to augment or exceed the provisions in the MOA, the project owner shall coordinate historic preservation treatment with the CPM. Such coordination may, at the discretion of the ~~applicant~~project owner, be on a formal or informal basis. However, the CPM shall make the final determination of the consistency of project activities with Energy Commission conditions of compliance.

Verification:

Prior to the implementation of any historic preservation treatments in these conditions that may conflict in a mutually exclusive manner with any analogous treatments that a Federal MOA may provide or that may precisely duplicate such analogous treatments, the project owner shall consult with the CPM concerning any such conflicts and provide, for the review and approval of the CPM, formal correspondence that relates the outcome of said consultation, states the ~~applicant's~~project owner's determination that a mutually exclusive conflict or precisely duplicative effort exists, and provides evidentiary support for that determination. The ~~applicant~~project owner shall not proceed with the implementation of any historic preservation treatments that are subject to consultation under this condition until the CPM approves the applicant's determination thereon.

CUL-11: PUBLIC ACCESS TO HISTORIC FEATURESHISTORIC INTERPRETIVE ROADSIDE STOP

Prior to the start of construction, the project owner shall provide conceptual plans for the Historic Interpretive Roadside Stop (HIRS or roadside stop) Area to the CPM for review and approval. ~~The plans shall also identify existing historic features of Rice AAF and Camp Rice that would be protected from disturbance during construction and preserved in accordance with the MOA.~~ Prior to commercial operation of RSEP, the project owner shall provide the final plans for the ~~Historic Interpretive Area~~roadside stop to Western, BLM, and Riverside County for review and comment, and to the CPM for review and approval, ~~that would illustrate and interpret Rice AAF and Camp Rice as components of the larger DTC/C-AMA.~~ Construction of the roadside stop Historic Interpretive Area shall be complete prior to the start of commercial operations. The project owner's plans for the ~~Historic Interpretive Area~~may roadside stop shall be coordinated with Caltrans and Riverside County, and shall be developed in a manner that does not compromise site or public safety or security.

The Historic Interpretive AreaRoadside Stop shall include and make accessible to the public the following features:

1. An encroachment off SR 62 (~~proposed Fire Access road encroachment~~) to the ~~Historic Interpretive Area~~roadside stop and vehicle parking area, consistent with Caltrans, Riverside County, and the Americans with Disabilities Act (ADA) access and requirements parking requirements; The vehicle parking area shall include:
 - a. Four (4) parking spaces, including one van-accessible ADA-compliant parking space.
 - b. The parking spaces and encroachment shall provide a level, all-weather surface, preferably of compacted rock, decomposed granite, or similar permeable material, or as required by Caltrans.
2. An interpretive kiosk, protected by a shade structure, that displays a minimum of five (5) panels of text and graphics illustrations (e.g. photographs, maps, and diagrams) that illustrate and interpret Rice AAF and Camp Rice as individual historic features

properties and as components of the larger DTC/C-AMA.; Access to the kiosk shall be handicap-accessible, over a level, all-weather surface, preferably of compacted rock, decomposed granite, or similar permeable material, or paved with asphalt concrete, consistent with Riverside County paving requirements and Caltrans encroachment requirements.

3. ~~Identification of existing historic features of Rice AAF, adjacent to the kiosk, with signage and interpretive information along an ADA-accessible walking trail;~~
4. ~~A shade-covered area, with minimum of two picnic tables and benches;~~
3. Self-closing, wildlife-resistant trash cans;
4. ~~A two-stall, ADA-accessible, contained restroom facility; and~~
5. A drinking fountain.

Verification:

1. At least 30 days prior to the start of construction, the project owner shall submit conceptual plans for the ~~Historic Interpretive Area~~Roadside Stop to Western, BLM, and Riverside County for review and comment, and to the CPM for review and approval. ~~The plan shall identify existing historic features of Rice AAF and Camp Rice that would be protected from disturbance during construction and preserved in accordance with the MOA.~~
2. No later than one year following ~~commencement of RSEP~~ start of construction, the project owner shall submit final plans for the roadside stop ~~Historic Interpretive Area~~ to Western, BLM, and Riverside County for review and comment, and to the CPM for review and approval.
3. At least 30 days prior to ~~RSEP~~ the start of commercial operation, the project owner shall complete construction of the ~~Historic Interpretive Area~~ and ~~obtain approval from roadside stop~~ and submit photographic proof of completion to the CPM that the Historic Interpretive Area meets the requirements of this condition for review and approval. The ~~Historic Interpretive Area shall be open~~roadside stop shall be made accessible to the public within 10 days from the start of commercial operations and shall be maintained by the project owner for the life of the project.
4. In each Annual Compliance Report, the project owner shall provide a summary of the following:
 - a. ~~Estimated public visitation to the Historic Interpretive Area~~roadside stop;
 - b. Any issues associated with operating and maintenance;
 - c. Proposed maintenance and improvements, and a schedule for completion;
 - d. A log of all completed maintenance and improvements to the ~~Historic Interpretive~~

Area roadside stop from the start of RSEP commercial operation to the present day.

CUL-12 FLAG AND AVOID

Resources ~~within the Warren Alquist Public Use Area (in just outside the northwestern corner~~portion of the main facility circular footprint ~~will~~would be preserved through avoidance. Previously recorded resources along Western's Parker Dam-Blythe Transmission Line No. 2, subject to possible project impacts, shall be revisited prior to construction. In the event that new resources are discovered during construction or previously recorded resources would be additionally affected, where impacts can be reduced or avoided, the project owner shall:

1. Ensure that a CRS, alternate CRS or CRM re-establish the boundary of each site, add a 10-meter-wide buffer around the periphery of each site boundary, and flag the resulting space in a conspicuous manner;
2. Ensure that a CRM enforces avoidance of the flagged areas during RSEP construction; and
3. Ensure, after completion of construction, boundary markings around each site and buffer are removed so as not to attract vandals.
4. Site records for previously documented resources shall be updated.

Within 90 days of transmission line construction, the project owner shall submit for CPM review and approval, site record updates of resources subject to possible impacts.

Within 90 days of the completion of plant construction, the project owner shall submit for CPM review and approval a letter, with photograph and maps, evidencing the removal of boundary markings.

CUL-13 HISTORIC PROPERTIES INTERPRETATION FUND

The project owner shall contribute to a special fund set up by the Energy Commission and/or Western to finance the following through the auspices of the George Patton Memorial Museum, Chiriaco Summit, California:

- 1) The production of a high-definition, broadcast quality documentary of the Rice Army Airfield (Rice AAF), Camp Rice, and the surrounding DTC/C-AMA cultural landscape, focusing on the integration and contributions of the Rice AAF, Camp Rice, and other airfields and support facilities to the DTC/C-AMA WWII military training mission, from an aviation perspective.
- 2) The design of a tri-fold brochure for public distribution, interpreting the significance of Rice AAF and Camp Rice as individual historical features and as contributing features within the DTC/C-AMA cultural landscape.

- 3) Preparation of an interpretive display, related to the Rice AAF, Camp Rice, and the DTC/C-AMA, at the General Patton Memorial Museum. The display shall incorporate the documentary information on the Rice AAF and Camp Rice, in the context of the DTC/C-AMA military training operations in the California Desert.

The amount of the contribution shall be a one-time payment of \$100,000. The contribution to the special fund may be made in installments, with the approval of the Compliance Project Manager (CPM), with the first installment to constitute 1/3 of the total original contribution amount.

Verification:

At least 60 days prior to site mobilization, the project owner shall contribute the entire amount of the required contribution or the first of three installments, equal to one-third of the total contribution amount, to the established funding vehicle for the Program. The delivery dates for the remaining installments shall be determined by the CPM, based on program requirements.

The project owner shall provide a copy of the notice of successful transfer of funds for any payment or installment to the George Patton Memorial Museum fund to the CPM within 10 days of receipt.

CUL-13 — DOCUMENTARY (DTC/C-AMA SKY TOUR)

The project owner shall ensure the production of a high-definition, broadcast quality documentary of the Rice Army Airfield (Rice AAF), Camp Rice, and the surrounding DTC/C-AMA cultural landscape, focusing on the integration and contributions of the Rice AAF, Camp Rice, and other airfields and support facilities to the DTC/C-AMA WWII military training mission, from an aviation perspective.

1. Prior to the start of filming, the project owner shall provide the qualifications of the proposed production company to the Executive Director of the George S. Patton Museum for review and comment, and to the CPM for review and approval. The production company shall have experience in the creation of historic documentary-style videos, consistent with History Channel, Discovery Channel, and PBS production values, and shall provide evidence of the successful completion of at least three full-length videos from project development to release. A copy of any contract related to the production of the documentary shall be submitted to the CPM within 10 days of execution.
2. Prior to the start of filming, the project owner shall also submit the resume of a proposed production advisor to the CPM for review and approval. The production advisor, shall be a qualified historian, with training and experience consistent with the requirements of the U.S. Secretary of Interior's Professional Qualifications Standards, as published in Title 36, Code of Federal Regulations, part 61. In addition, the advisor must have experience researching and documenting historic military resources, preferably within the DTC/C-AMA. The production advisor shall

provide direction during production and post-production to ensure historical accuracy and to provide assistance obtaining historic WWII documentation (e.g., military film and training footage, news clips, still photos, audio and written transcripts of interviews) and the most recent information on Camp Rice and the Rice AAF in particular, and the DTC/C-AMA in general.

3. Prior to the start of site mobilization, the production company shall take the initial aerial footage of the remains of the Rice AAF and Camp Rice facilities and features and training fields surrounding the camp. In addition, aerial footage shall be taken of the remains of other facilities and features that are integral or contributing to the DTC/C-AMA cultural landscape, including airfields, camps, bombing ranges, and the King's Throne (where Patton sat to observe maneuvers) as soon as feasible, preferably prior to significant surface disturbance at the Blythe, Palen, and Genesis solar power project sites or other locations slated for development in the near future. Historic film; still photos; re-creations; interview footage and audio tracks; and compatible, high-quality video footage of the subject areas taken prior to current filming may also be integrated into the final product. The original acquisition format shall be high definition, 16X9, 1080p digital format, using broadcast-level cameras and lenses. The aerial documentation shall be photographed using a television motion picture, industry-accepted camera stabilization system, mounted to a helicopter.
4. Prior to the start of production editing, the project owner shall submit a first draft script, storyboard, and description of other related project elements, including proposed finished length of the documentary (minimum 45 minutes of edited footage for the full-length version and 10 minutes for the abbreviated (excerpt) version), to the DTCCL PI-Historian, production advisor, and Executive Director of the George S. Patton Museum for review and comment, and to the CPM for review and approval.
5. Prior to the start of commercial plant operations, the project owner shall submit the final cut, with voice-over and background music track, along with packaging proofs, including sample cover, disk label, and packaging materials, to the DTCCL PI-Historian, production advisor, and Executive Director of the George S. Patton Museum for review and comment, and to the CPM for review and approval.
6. Concurrent with the start of commercial plant operations, the project owner shall provide the final approved full-length documentary to the George S. Patton Museum in a high definition format, suitable for mass market duplication, along with 500 DVD copies and 100 BluRay copies of the full-length packaged documentary, suitable for resale. Ten DVD copies and five BluRay copies of the packaged documentary shall also be provided to the BLM Palm Springs-South Coast Field Office, Western, and the CPM. The 10-minute excerpt shall be provided to all parties in a digital format compatible with display requirements of the Museum and webcasting requirements of BLM, Western, and the Energy Commission.

7. In conjunction with delivery of the final approved documentary in the designated format, the project owner shall provide a letter to the George S. Patton Museum confirming that the Museum is assigned and shall exclusively retain all DVD, BluRay, and video reproduction and sales rights, and broadcast television distribution rights of the production, both foreign and domestic, excepting use of excerpts from the documentary [including the 10-minute excerpt (short)] on any Bureau of Land Management, Western, or Energy Commission website related to DTC/C-AMA, southern California Desert history, or renewable energy projects within former DTC/C-AMA areas. The letter shall also confirm that the production company may retain copies of the production specifically for promotional and demonstration purposes only. Copies of the letter shall be sent to the CPM, BLM, Western, and the production company representative.
8. The project owner shall ensure that all raw footage acquired during the production of the documentary is submitted to the DTCCCL PI-Historian for use in the DTCCCL study. Use of the footage for research purposes shall not be restricted. Ten DVD copies and five BluRay copies of the packaged documentary shall also be provided to the DTCCCL PI-Historian.

Verification:

1. At least 15 days prior to the start of filming, the project owner shall provide the qualifications of the proposed production company to the Executive Director of the George S. Patton Museum for review and comment, and to the CPM for review and approval. A copy of any contract related to the production of the documentary shall be submitted to the CPM within 10 days of execution.
2. At least 15 days prior to the start of filming, the project owner shall also submit the resume of a proposed production advisor to the CPM for review and approval. The production advisor, shall be a qualified historian, with training and experience consistent with the requirements of the U.S. Secretary of Interior's Professional Qualifications Standards, as published in Title 36, Code of Federal Regulations, part 61. In addition, the advisor must have experience researching and documenting historic military resources, preferably within the DTC/C-AMA.
3. Prior to the start of site mobilization, the production company shall take the initial aerial footage of the remains of the Rice AAF and Camp Rice facilities and features and training fields surrounding the camp. In addition, aerial footage shall be taken of the remains of other facilities and features that are integral or contributing to the DTC/C-AMA cultural landscape as soon as feasible, preferably prior to significant surface disturbance at the Blythe, Palen, and Genesis solar power project sites or other locations slated for development in the near future. The original acquisition format shall be high definition, 16X9, 1080p digital format, using broadcast-level cameras and lenses. The aerial documentation shall be photographed using a television motion picture, industry-accepted camera stabilization system, mounted to a helicopter.

4. At least 30 days prior to the start of production editing, the project owner shall submit a first draft script, storyboard, and description of other related project elements, including proposed finished length of the documentary (minimum 45 minutes of edited footage), to the DTCCL PI-Historian, production advisor, and Executive Director of the George S. Patton Museum for review and comment, and to the CPM for review and approval.
5. At least 90 days prior to the start of commercial plant operations, the project owner shall submit the final cut, with voice-over and background music track, along with packaging proofs, including sample cover, disk label, and packaging materials, to the DTCCL PI-Historian, production advisor, and Executive Director of the George S. Patton Museum for review and comment, and to the CPM for review and approval.
6. Concurrent with the start of commercial plant operations, the project owner shall provide the final approved documentary to the George S. Patton Museum in a high definition format, suitable for mass market duplication, along with 500 DVD copies and 100 BluRay copies of the full-length packaged documentary, suitable for resale. Ten DVD copies and five BluRay copies of the packaged documentary shall also be provided to the BLM Palm Springs-South Coast Field Office, Western, and the CPM.
7. In conjunction with delivery of the final approved documentary in the designated format, the project owner shall provide a letter to the Executive Director of the George S. Patton Museum confirming that the Museum is assigned and shall exclusively retain all DVD, BluRay, and video reproduction and sales rights, and broadcast television distribution rights of the production, both foreign and domestic, excepting use of excerpts from the documentary (including the 10-minute short referenced in CUL-14) on any Bureau of Land Management, Western, or Energy Commission website related to DTC/C-AMA, military history, or energy projects in the southern California desert. The letter shall also confirm that the production company may retain copies of the production specifically for promotional and demonstration purposes only. Copies of the letter shall be sent to the CPM, BLM, Western, and the production company representative.
8. Within 30 days from the start of construction, the project owner shall ensure that all raw footage acquired during the production of the documentary is submitted to the DTCCL PI-Historian for use in the DTCCL study. Use of the footage for research purposes shall not be restricted. Ten DVD copies and five BluRay copies of the packaged documentary shall also be provided to the DTCCL PI-Historian.

CUL-14 INTERPRETIVE MATERIALS

1. The project owner shall provide the design of at least one tri-fold brochure and one bi-fold pamphlet and an initial production run of both documents of at least 2,500 copies to the George S. Patton Museum for public distribution, interpreting the significance of Rice AAF and Camp Rice as individual historical features and as

contributing features within the DTC/C-AMA cultural landscape.

Prior to the final phase of plant construction, the project owner shall submit draft design proofs of the brochure and pamphlet to the Executive Director of the Museum for review and comment, and to the CPM for review and approval.

Prior to the start of commercial plant operations, the project owner shall submit final design proofs of the brochure and pamphlet to the Executive Director of the Museum for review and comment, and to the CPM for review and approval.

Prior to or concurrent with the start of commercial plant operations, the project owner shall submit a digital/electronic template of the brochure and pamphlet designs, along with 2,500 copies each of the brochure and pamphlet, suitable for public distribution, to the Executive Director of the Museum. The project owner shall also submit the final digital/electronic template of the brochure and pamphlet to the CPM, BLM Palm Springs-South Coast Field Office, and Western. The project owner, Museum, Energy Commission, BLM, and Western shall have authorized use of the initial (and any revised) templates for future production runs for distribution to the public or display on any of the parties' informational websites.

2. According to the Executive Director of the George S. Patton Museum (Museum), a new museum will be built within the next five to six years. Following completion of construction and opening of the new facility to the public, the project owner shall provide and install an interpretive display, related to the Rice AAF, Camp Rice, and the DTC/C-AMA, at the George S. Patton Museum. The display shall be designed consistent with interpretive displays existing at the time of installation and shall incorporate the documentary information on the Rice AAF and Camp Rice, in the context of the DTC/C-AMA military training operations in the California Desert (including the 10-minute sky tour documentary excerpt).

Prior to the preliminary approval of the new Museum construction plans, the project owner shall consult with the Executive Director of the George S. Patton Museum and DTCCL PI-Historian (or Energy Commission Cultural Staff, if the DTCCL study is no longer in existence) regarding design parameters, content, and construction requirements of the interpretive display.

Prior to the final approval of new Museum construction plans, the project owner shall submit the draft exhibit design plans to the Executive Director of the Museum and DTCCL PI-Historian for review and comment, and the CPM for review and approval.

Prior to the start of new Museum construction, the project owner shall submit the final exhibit design and construction plans to the Executive Director of the Museum and DTCCL PI-Historian for review and comment, and the CPM for review and approval.

Prior to the completion of construction, the project owner shall ensure that the approved interpretive display is constructed and installed as an integral part of the

new Museum public display area.

Annually, for each year following the installation of the display, and for the life of the project, the project owner shall contribute \$10,000 to the Museum to offset the cost of the exhibit space; maintenance and upgrades to the display; curation of the display during times when it is being updated or is not on display; and to incorporate the information about Camp Rice, Rice AAF, and the DTC/C-AMA provided in the sky tour documentary, brochure, pamphlet, interpretive display, and on-going DTCCL research (see **CUL-1**) into teachers' Internet resources and Museum-sponsored podcast facilities for interactive learning.

Verification:

1. (a) At least 90 days prior to the completion of construction, the project owner shall submit draft design proofs of the brochure and pamphlet to the Executive Director of the Museum for review and comment, and to the CPM for review and approval.

(b) At least 30 days prior to the start of commercial plant operations, the project owner shall submit final design proofs of the brochure and pamphlet to the Executive Director of the Museum for review and comment, and to the CPM for review and approval.

(c) Within 30 days from the start of commercial plant operations, the project owner shall submit the final digital/electronic template of the brochure and pamphlet designs, along with 2,500 copies each of the brochure and pamphlet, suitable for public distribution, to the Executive Director of the Museum. The project owner shall also submit the final digital/electronic template of the brochure and pamphlet to the CPM, BLM Palm Springs-South Coast Field Office, and Western.

2. (a) At least one year prior to the preliminary approval of the new Museum construction plans, the project owner shall consult with the Executive Director of the George S. Patton Museum and DTCCL PI-Historian, production advisor identified in **CUL-13**, or qualified Energy Commission Cultural Staff, regarding design parameters, content, and construction requirements of the interpretive display.

(b) At least 120 days prior to the final approval of new Museum construction plans, the project owner shall submit the draft exhibit design plans to the Executive Director of the Museum and DTCCL PI-Historian for review and comment, and the CPM for review and approval.

(c) At least 90 days prior to the start of new Museum construction, the project owner shall submit the final exhibit design and construction plans to the Executive Director of the Museum and DTCCL PI-Historian or production advisor identified in **CUL-13** for review and comment, and the CPM for review and approval.

(d) At least 30 days prior to the completion of construction, the project owner shall ensure that the approved interpretive display is constructed and installed as an integral part of the new Museum public display area.

~~(e) Prior to January 15 of each year following the installation of the display, and extending for the life of the project, the project owner shall contribute \$10,000 to the Museum. The project owner shall provide a copy of a receipt or letter from the Museum acknowledging the contribution to the CPM within 10 days of receipt.~~

STATE OF CALIFORNIA

Energy Resources
Conservation and Development Commission

In the Matter of:

Application For Certification for the
RICE SOLAR ENERGY PROJECT

DOCKET NO. 09-AFC-10

**DECLARATION OF
BOB ANDERS**

I, Bob Anders, declare as follows:

1. I am presently employed by Worley Parsons, as a Senior Engineer and Project Manager.
2. A copy of my professional qualifications and experience is included herewith (Attachment A to Testimony) and is incorporated by reference in this Declaration.
3. I prepared the attached testimony relating to Worker Safety and Fire Protection for the Rice Solar Energy Project (California Energy Commission Docket Number 09-AFC-10).
4. It is my professional opinion that the attached prepared testimony is valid and accurate with respect to issues that it addresses.
5. I am personally familiar with the facts and conclusions related in the attached prepared testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct to the best of my knowledge and that this declaration was executed on October 22, 2010.

-original signed

Bob Anders

STATE OF CALIFORNIA

Energy Resources
Conservation and Development Commission

In the Matter of:

Application For Certification for the
RICE SOLAR ENERGY PROJECT

DOCKET NO. 09-AFC-10

**DECLARATION OF
JOHN SNELL**

I, John Snell, declare as follows:

1. I am presently employed by Aurora Consulting, Inc., serving as president of the company.
2. A copy of my professional qualifications and experience is included herewith (Attachment A to Testimony) and is incorporated by reference in this Declaration.
3. I prepared the attached testimony relating to Worker Safety and Fire Protection for the Rice Solar Energy Project (California Energy Commission Docket Number 09-AFC-10).
4. It is my professional opinion that the attached prepared testimony is valid and accurate with respect to issues that it addresses.
5. I am personally familiar with the facts and conclusions related in the attached prepared testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct to the best of my knowledge and that this declaration was executed on October 22, 2010.

- Original signed

John Snell

STATE OF CALIFORNIA

Energy Resources
Conservation and Development Commission

In the Matter of:

Application For Certification for the
RICE SOLAR ENERGY PROJECT

DOCKET NO. 09-AFC-10

**DECLARATION OF
SCOTT KAMINSKI**

I, Scott Kaminski, declare as follows:

1. I am presently employed by SolarReserve, as a Project Manager.
2. A copy of my professional qualifications and experience is included herewith (Attachment A to Testimony) and is incorporated by reference in this Declaration.
3. I prepared the attached testimony relating to Worker Safety and Fire Protection for the Rice Solar Energy Project (California Energy Commission Docket Number 09-AFC-10).
4. It is my professional opinion that the attached prepared testimony is valid and accurate with respect to issues that it addresses.
5. I am personally familiar with the facts and conclusions related in the attached prepared testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct to the best of my knowledge and that this declaration was executed on October 22, 2010.

- Original signed

Scott Kaminski

STATE OF CALIFORNIA

Energy Resources
Conservation and Development Commission

In the Matter of:

Application For Certification for the
RICE SOLAR ENERGY PROJECT

DOCKET NO. 09-AFC-10

**DECLARATION OF
WESLEY ALSTON**

I, Wesley Alston, declare as follows:

6. I am presently employed by Aurora Consulting, Inc., serving as president of the company.
7. A copy of my professional qualifications and experience is included herewith (Attachment A to Testimony) and is incorporated by reference in this Declaration.
8. I prepared the attached testimony relating to Worker Safety and Fire Protection for the Rice Solar Energy Project (California Energy Commission Docket Number 09-AFC-10).
9. It is my professional opinion that the attached prepared testimony is valid and accurate with respect to issues that it addresses.
10. I am personally familiar with the facts and conclusions related in the attached prepared testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct to the best of my knowledge and that this declaration was executed on October 22, 2010.

- Original signed

Wesley Alston

I. Name(s): Bob Anders, John Snell, Scott Kaminski and Wesley Alston

II. Purpose:

Our testimony addresses the subject of Worker Safety and Fire Protection associated with the construction and operation of the Rice Solar Energy Project (09-AFC-10).

III. Qualifications:

Bob Anders: I am presently employed at WorleyParsons, and have been for the past 2 years and am presently a Sr. Civil Engineer/Project Manager with that organization. I have an Engineering Degree in Civil Engineering and I have over 25 years of experience in the field of Civil Engineering. I prepared or assisted in the preparation of the Worker Safety and Fire Protection section of the AFC as well as the post-filing information, data responses, and supplemental filings. A detailed description of my qualifications is contained in the attached resume.

John Snell: I am presently employed at Aurora Consulting, Inc., and have been for the past 16 years and am presently the President of that organization. I am a Professional Engineer in Civil Engineering and I have over 15 years of experience in the field of Worker Safety and Fire Protection. I prepared or assisted in the preparation of the Fire Needs Assessment for the Rice Solar Energy Project. A detailed description of my qualifications is contained in the attached resume.

Mr. Snell, of Aurora Consulting, has over 30 years of professional consulting experience in Southern California real estate development including services related to project management, civil engineering, entitlement, and planning and design for a wide range of projects. These have ranged from small retail to large industrial projects as well as multi-family developments to large master planned communities. In addition, Mr. Snell has managed the preparation of extensive technical studies consisting of fire mitigation plans addressing wildland/development interface zones and fuel modification zones, traffic impact analyses, hydrology and water quality assessments, and water and sewer capacity studies.

Mr. Snell also currently serves by appointment as a Riverside County Planning Commissioner, a position he has held since 1994. Mr. Snell has provided leadership related to many County Planning decisions that have occurred within Riverside County. In his role as a Planning Commissioner, Mr. Snell has worked closely with all County agencies and has developed close working relationships with their executive management. In his capacity as a Planning Commissioner, Mr. Snell regularly negotiates for the benefit of the County with project applicants and their consultants. On occasion, he advocates for projects with the County in the event that circumstances have created a controversial or inequitable impact, but has only done so on projects outside his district.

Scott Kaminski: I am presently employed at SolarReserve, and have been for the past 1.5 years and am presently a Project Manager with that organization. I have a Bachelor's Degree in Human Resources Management and I have over 25 years of experience in the field of power plant operations, maintenance, construction, commissioning, engineering, design, procurement, and project management. I prepared or assisted in the preparation of the Worker Safety and Fire Protection section of the AFC as well as the post-filing information, data responses, and supplemental filings. A detailed description of my qualifications is contained in the attached resume.

Wes Alston: I am presently employed at Pacific Development Solutions Group, and have been for the past 8 years and am presently a principal consultant with that organization. I have a Degree in Bachelor of Science in Engineering and I have over 40 years of experience in the field of Worker Safety and Fire Protection. I prepared or assisted in the preparation of the Fire Needs Assessment for the Rice Solar Energy Project. A detailed description of my qualifications is contained in the attached resume.

Mr. Alston of PDSG has unique credentials related to the analysis of fire protection services in Riverside County, abundantly qualifying him to prepare the FNA for the Rice Solar Energy Project (RSEP). In addition to his current consulting practice which provides fire compliance and fire protection analysis services to the public and private sector, he has served in both an administrative capacity and at the Staff level for the Riverside County Fire Department (RCFD) as well as for the State of California Department of Forestry and Fire Protection (CAL FIRE). During his 31-year tenure with RCFD/CAL FIRE, he served in the following positions: RCFD Deputy Fire Chief for four years, during which he was assigned as City of Moreno Valley Fire Chief; City of Moreno Valley Battalion Chief/Fire Marshal for three years; and Fire Captain Specialist for 15 years. Mr. Alston was instrumental in the preparation of the *Riverside County Fire Protection and Emergency Medical Master Plan* adopted by the County Board of Supervisors in 1987 and the corresponding amendments to the *Riverside County Fire Ordinance*. These documents are still in effect today.

Mr. Alston has a working knowledge of the 2007 California Fire Code and the County Ordinances related to the 2007 California Fire Code, building codes, and the use, storage and disposal of hazardous materials. In addition, he has knowledge and expertise in the National Fire Protection Association (NFPA) Codes and Standards, including NFPA Code 30a, NFPA 1006 Standard for Technical Rescuer Professional Qualifications, and NFPA 1670 Standard on Operations and Training for Technical Search and Rescue Incidents.

IV. Exhibits:

In addition to this written testimony, we are sponsoring the following exhibits in this proceeding.

- Exhibit 1 **Application for Certification Volumes I and II**, dated October 2009, and docketed on October 21, 2009, Section 5.16.
- Exhibit 2 **Rice Solar Energy, LLC's Data Adequacy Supplement**, dated November 2009, and docketed on November 20, 2009, Responses 7 through 8.
- Exhibit 3 **Plan of Development Completion Letter**, dated February 9, 2010, and docketed on February 18, 2010.
- Exhibit 30 **Rice Solar Energy, LLC's Letter Regarding Riverside County Impact Fees & Fire Department Requirements**, dated July 6, 2010, and docketed on July 6, 2010.
- Exhibit 34 **Rice Solar Energy, LLC's Proposed Conditions: Land Use & Worker Safety**, dated July 16, 2010, and docketed on July 19, 2010.
- Exhibit 43 **Rice Solar Energy LLC's Fire Needs Assessment**, dated October 1, 2010, and docketed on October 1, 2010.

V. Opinion and Conclusions:

We have reviewed the Worker Safety and Fire Protection section of the SA/DEIS and believe that with the modifications to the Conditions of Certification set forth below, the Project will not result in any significant Worker Safety and Fire Protection impacts and will comply with all applicable Worker Safety and Fire Protection laws, ordinances, regulations and standards (LORS).

RSE requests the Deletion of WORKER SAFETY-7 and WORKER SAFETY-8 for the reasons set forth below, as well as minor modifications to WORKER SAFETY-10 and WORKER SAFETY-11 as requested by the EMS manager for Riverside County.

Rationale for Deleting Worker Safety-7 and Worker Safety-8:

The SA/DEIS identified significant impacts to the Riverside County Fire Department (RCFD) using a combination of two primary tools. The first was RCFD's estimate of the amount of money that it reported it needed to mitigate cumulative impacts for several projects being considered by the Commission. The second tool was a matrices intended to rank projects in relation to each other to help assess the allocation of the funds requested by RCFD. While we understand Staff's dilemma in attempting to assess potential impacts and determine appropriate mitigation, we disagree with the approach and the ultimate conclusion for the RSEP.

To assess the potential impacts to the RCFD rather than rely on RCFD's unsubstantiated demand for funds, Mr. Wes Alston of PDSG and Mr. John Snell of Aurora Consulting prepared a Fire Needs Assessment for the Rice Solar Energy Project (RSEP or Project) utilizing the following methodology:

- a) Intensive Research: Based on their expertise in fire protection and Riverside County practices, procedures, and protocols, Mr. Alston and Snell conducted intensive research regarding worker safety and fire protection standards that would be relevant to the RSEP, including the applicable federal, State, and local laws, ordinances, regulations, and standards. In addition, worker safety and fire protection issues related to other power generation projects, including those in remote locations, were researched.
- b) Analysis of Potential Issues: Utilizing information obtained through investigation of the RSEP site and general, as well as the project characteristics provided by SolarReserve, Mr. Alston and Snell conducted an analysis to identify the potential for hazards and risks at the RSEP site and in surrounding area, including potential effects to adjacent properties and accidents that could occur on off-site roadways based on official published accident rate data.
- c) Analysis of RSEP Characteristics and Programs: Mr. Alston and Snell conducted an analysis of the project characteristics, including the fire protection systems incorporated into the RSEP design as originally proposed in the RSEP Application for Certification (AFC) and augmented by supplemental project description information provided during the course of the permitting process.
- d) Identification of Hazards and Risks: Based on the analysis of the RSEP project characteristics, the safety and health programs referenced in the AFC, and the proposed Worker Safety Conditions of Certification identified in the California Energy Commission's (CEC) Staff Assessment/Draft Environmental Impact Statement (SA/DEIS), Mr. Alston and Snell identified the potential hazards and risks, including those related to hazardous materials use, accidental release hazards, fire and explosion hazards, and vehicle accidents on off-site roadways, as a result of the construction and ongoing operation of the RSEP.
- e) Evaluation of RCFD Resources: Utilizing information from the *Riverside County Fire Department Strategic Plan 2009-2029*, the *Riverside County Fire Department/CAL FIRE 2009 Yearly Emergency Incident Statistics* report, and the *Riverside County Fire Protection and Emergency Medical Master Plan*, Mr. Alston and Snell evaluated the current RCFD workload and resources available at the RCFD stations closest to the RSEP site. The analysis included the ability of the RCFD to respond to other off-site emergencies (i.e., resource drawdown).

In order to fully understand the potential impacts to RCFD that are caused by the RSEP, it is necessary to understand the unique technology incorporated into the RSEP and the fire prevention and worker safety measures incorporated into the RSEP design..

The RSEP concentrating solar thermal power technology design uses liquid salt as the heat transfer medium in the central receiver tower. The salt, which is only circulated within the power block area, is non-flammable and enclosed within a contained system. In contrast, other proposed solar plants recently approved by the CEC utilize millions of gallons of flammable and hazardous materials as the heat transfer medium, which flows throughout the entire plant site, including the extensive solar heat collection mirror fields surrounding the power generation facilities and, therefore present a much greater risk of fire-related hazards than the RSEP.

The RSEP will include extensive fire protection systems designed and maintained in accordance with the relevant NFPA guidelines and Riverside County code requirements. Two sets of diesel-driven fire pumps will provide power to a dedicated fire-loop piping system consisting of underground piping and aboveground hydrants, sprinklers, and risers. Fixed fire-suppression systems will be installed at determined fire risk areas within the power generation building. A sprinkler system will be installed in the administration building, shop maintenance building, and fire pump enclosures. The primary source of fire protection water will be an on-site raw water storage tank. Handheld fire extinguishers of the appropriate size and rating will be located throughout the facility in accordance with NFPA 10 and local requirements.

The central receiver tower is a 538-foot high concrete tower with a 100-foot tall solar receiver and a 15-foot crane (for a total of 653 feet). A strict operating policy will be set forth that prohibits operating and/or maintenance personnel from entering the tower during daily operations while the tower is on line and capturing the energy of the sun. All maintenance, testing, or other operations in the tower would be done after all liquid salt has been evacuated from the receiver. The concrete tower itself has no flammable or hazardous materials; a stairway, elevator, and hoist system can be used during an emergency event. Further, in accordance with the safety plans defined by SolarReserve, a first aid kit and automatic external defibrillator (AED) would be positioned within the upper portion of the tower for use by appropriately trained RSEP personnel during an emergency. Due to the height of the tower and the confined space therein, the daily operations and maintenance personnel for the central receiver tower would have NFPA 1006 level of training (Standard for Technical Rescuer Professional Qualifications). Major maintenance activity on the central receiver tower would be performed on a periodic basis by a contractor with personnel trained and certified to NFPA 1670 (Standard on Operations and Training for Technical Search and Rescue Incidents) standards.

To protect the workers as well as any emergency responders, SolarReserve identified as part of its AFC numerous safety and health programs that will be implemented during both the construction phase and the ongoing operations of the RSEP. These programs are consistent with the applicable laws, ordinances, regulations, and standards related

to worker safety and fire protection and were found by the FNA to be adequate to protect worker safety. In addition to these safety and health programs set forth by SolarReserve, the CEC has identified specific Conditions of Certification in the Worker Safety section of the SA/DEIS that require SolarReserve to implement additional safety measures including:

- development and implementation of Best Management Practices (BMPs) related to the storage and application of the herbicides used to control weeds surrounding the solar array (Condition of Certification Worker Safety-2);
- the appointment of a Construction Safety Supervisor who is knowledgeable in power plant construction activities, the applicable laws, ordinances, regulations and standards, workplace hazards, and who is empowered to take action on the construction site to assure on-site worker safety compliance (Condition of Certification Worker Safety-3);
- purchase and placement of a portable automatic external defibrillators (AEDs) on site along with an on-going safety program to ensure that (1) the appropriate workers are thoroughly trained in the proper use of the AED and (2) the equipment is maintained and functioning at all times (Condition of Certification Worker Safety-5); and
- development and implementation of an enhanced Dust Control Plan to address the potential hazards related to dust particulates, including the potential for Coccidioidomycosis or “Valley Fever” (Condition of Certification Worker Safety-9).

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RCFD has identified that the ONLY impact is “drawdown”, which has been described as the condition that results when the RCFD is responding to one emergency and therefore does not have the resources to respond to others. So in order for this to be a significant impact under CEQA the Committee should consider the incredible low probability that RCFD would ever need to respond to the RSEP and during such a response there would be other emergencies to which it could not respond. As described in detail below and the attached tables appended to this testimony, the RSEP has agreed to include emergency response services on site to minimize the probability that RCFD would ever respond to the RSEP to provide emergency services. If the already low probability of an emergency occurring at the RSEP is lowered even further by the mitigation proposed by SolarReserve, we believe that the RSEP simply does not contribute to any cumulative drawdown issues.

Based on a “reasonable standard” for an engine company workload of 6.5 calls per day (or 2,190 calls on an annual basis), the three RCFD fire stations closest to the RSEP site (Stations Nos. 43, 45, and 49) have the capability of responding to a total of 6,570 calls per year. The recent annual total of 1,092 annual calls per year represents 16 percent of the maximum workload capacity for these three fire stations. The very low utilization of the existing resources, combined with the very low probability of a response to RSEP demonstrates the lack of drawdown impacts.

To assist the Committee in understanding the types of events that could potentially require a response and the likelihood of such a response being provided by RCFD is presented in Table 1 and described below. Table 2 provides an analysis demonstrating how such events would not contribute to draw down of RCFD resources.

The RCFD operates 93 fire stations in six divisions. These divisions are comprised of 17 line battalions providing fire suppression, emergency medical, technical rescue, fire prevention, and related services. The RSEP site is located within the East Desert Division which encompasses the lower Coachella Valley and extends east out to the Arizona State line. There are two battalions (Battalions 6 and 8), nine permanent staffed fire stations, and two all-volunteer fire stations within the East Desert Division. The RSEP site is located within Battalion 8. These stations are staffed full-time, 24 hours seven days per week, with a minimum three person crew including Paramedics operating a “Type-1” structural firefighting apparatus.

The FNA addresses the risks to public health and safety that may be related to RCFD response to the RSEP, including being unable to respond to other fire or medical emergencies. The study evaluates a number of potential events (e.g., structure fire, vehicle fire, building collapse, on-site mass casualty, fuel explosion, roadway accident on County roadway), their likelihood of occurrence (i.e., remote, extremely low, or low probability), and how the response would be handled by RSEP personal and resources. Based on this evaluation, the study recommends that SolarReserve implement the following specific measures designed to address potential hazards and/or minimize risks to public health and safety:

- Due to the remote location of the RSEP site, SolarReserve shall provide the following on-site: 1) during any construction activities, SolarReserve shall have a contract with a Riverside County Emergency Medical Service (RCEMS) certified company to provide advanced life support capabilities with equipment and supplies; 2) during any construction activities, SolarReserve shall have on-site a Basic Life Support Ambulance with a California certified driver for use during medical emergency events; and 3) during ongoing operation, SolarReserve shall have a contract with a RCEMS certified company to provide an advanced life support system with equipment and supplies.
- During construction of the RSEP, SolarReserve shall contract with an air medical service to respond to a service request from an onsite responder which would be a RCEMS certified company. Since the RSEP is located on private property and the on-site responder would be certified by Riverside County, the request for air medical service can be made directly by the on-site responder without going through the County’s dispatch system. During the operational phase of the project, the on-site responder would make the service request.
- During construction activities that require the type of situations addressed by California Department of Safety and Health (Cal/OSHA) Standards Part 1910,

Occupational Safety and Health Administration Safety and Health Regulations, SolarReserve shall be required to provide evidence that a rescue team with NFPA 1670 level of training (Standard on Operations and Training for Technical Search and Rescue Incidents) will be available on-site for the extent of the construction activity.

- During operations, the daily on-site operational and maintenance personnel for the central receiver tower shall be required to have NFPA 1006 level of training (Standard for Technical Rescuer Professional Qualifications).
- During operations, SolarReserve's contractor performing periodic maintenance for the central receiver tower and within other confined space areas shall be required to provide evidence that their on-site personnel have an NFPA 1670 level of training (Standard on Operations and Training for Technical Search and Rescue Incidents).
- The water trucks used to spray ionized wash water on the array of heliostats shall be available for use on wildland fires occurring within the RSEP site boundaries.

Implementing these measures will allow SolarReserve to self-protect with RSEP resources, thereby significantly reducing the need to request RCFD response to the project site. The FNA concludes that based on workload capacity of the responding stations, the addition of the RSEP to their service area would not justify the addition of an engine company, a fire station, or any additional staff. As a result, draw down of County fire protection resources will not be significant and potential impacts to public health and safety in terms of fire protection would be less than significant.

The FNA also evaluated whether the addition of the RSEP to the RCFD service area would result in an increase in responses from the RCFD service area due to vehicle accidents on the roadways that may occur as a result of the additional daily trips generated by RSEP construction workers. The study concludes there is the potential for two additional vehicle accident with injuries to occur per year on the surrounding roadways in Riverside County. An accident with injuries may require a response from the RCFD. In addition, during the ongoing operation of the RSEP, it is not anticipated that the increased number of permanent workers will result in an increase in the number of vehicle accidents on the surrounding roadways in Riverside County. Therefore, the addition of the RSEP to the RCFD service area would result in an insignificant increase in responses from the RCFD due to vehicle accidents on the roadways in the project vicinity.

Demand for emergency medical services as a result of the RSEP would be eliminated through the incorporation of the consultant recommendations regarding: the provision of a contract with a RCEMS certified company and a Basic Life Support Ambulance with a California certified driver during construction activities; the provision of a contract with a RCEMS certified company during ongoing project operation; and contract with an air

medical service to respond to a service request from an onsite RCEMS certified responder. Therefore, the addition of the RSEP to the RCFD service area would not require emergency medical responses by the RCFD.

With respect to cumulative impact analysis, the FNA finds that construction and operation of the RSEP would not contribute to a significant cumulative impact to fire protection services provided by the RCFD. The distance of the RSEP site from the other proposed solar plants in Riverside County suggests that they are not within the same cumulative setting and, due to the different technologies and their different potential for fire-related hazards, the very limited potential for the demand for fire protection services generated by the RSEP does not warrant a similar approach to addressing the incremental increase in services that could occur at those plants. In addition, due to the distance of the RSEP from the existing fire stations and the limited need for fire protection services, additional mitigation such as funding additional resources is simply not necessary, nor required.

Finally, as part of the FNA, Mr. Alston and Snell reviewed and analyzed the Staff's Appendix A "Staff's Emergency Response Matrix" that was included in the Worker Safety section of the SA/DEIS. Based on a detailed review of the response criteria and the corresponding points and weighting factor, Mr. Alston and Snell believe the estimated value system is fundamentally flawed for the following reasons: the criteria and corresponding point system does not allow for the possibility that no impact would occur; no justification is given for the points assigned or the weighting factor used; and the total score definitions do not provide a category for a score less than 0.1. In addition, CEC Staff states in the SA/DEIS that, "Staff has tested this methodology on existing and planned solar power plants and finds it to be useful but cautions against using it as the sole basis for determining need or for allocating financial responsibility for direct individual or cumulative impacts."

Utilizing such an arbitrary response criteria and the corresponding points and weighting factors does not accurately reflect the actual or potential needs that might be associated with the RSEP. The following discussion provides a review of the response criteria and, to the extent feasible, a more accurate assessment of the "estimated value" for the RSEP from the Matrix used by Staff.

1. Inspections: The RSEP would receive inspection services provided by the RCFD in compliance with County Ordinance No. 671.18. Inspection services would be paid for by the RSEP on an as-needed-basis and would not be considered a response provided by the RCFD. Therefore, the Response Criteria estimated value is zero, not 0.3 as indicated in the matrix.

2. Fire, A. Quantity of Liquid Fuel or Hydrogen Gas Stored On-Site: As indicated in the FNA, the RSEP would store liquid fuel on-site consisting of 21,000 gallons of Diesel No. 2. No hydrogen gas would be used or stored

on the. Therefore, the conclusions of the FNA are consistent with the Response Criteria estimated value of 0.4 as indicated in the matrix.

2. Fire, B. Fire/Explosion Off-Site Consequences: The FNA concluded that, upon compliance with the applicable codes and regulations, the risk of fire and explosion as a result of the use, storage, and handling of Diesel No. 2, lubrication oil, acetylene (used for welding), and propane fuel would be minimal. In addition, due to the remoteness of the RSEP site, if such an event should occur, it would be limited to the project site. Therefore, the conclusions of the FNA are consistent with the Response Criteria estimated value of 0.30 as indicated in the matrix.

3. HazMat, A. Proximity to Sensitive Receptors: The FNA indicated that the land surrounding the RSEP site is primarily undeveloped desert land with the closest development located in Vidal Junction 15 miles to the east. The FNA concluded that the project would use limited quantities of hazardous materials and would comply with applicable laws and regulations for the storage of these materials to minimize the potential for a release of hazardous materials. Due to the remoteness of the RSEP site, no hazardous materials event would occur in proximity to sensitive receptors. Therefore, the conclusions of the FNA are consistent with the Response Criteria estimated value of 0.05 as indicated in the matrix.

3. HazMat, B. Hazmat Response Time: The FNA concluded that the project would use limited quantities of hazardous materials and would comply with applicable laws and regulations for the storage of these materials to minimize the potential for a release of hazardous materials. In addition, the FNA concluded that the incorporation of the fire protection systems into the design of the RSEP, compliance with the Safety and Health Programs defined by the project applicant, the applicable CEC Conditions of Certification (Worker Safety-1, -2, -3, and -4), and the consultant recommendations during the construction activities and the ongoing operation of the RSEP would adequately protect workers and the public from health and safety hazards including the accidental release of hazardous materials. As a result, the potential increase in the demand for fire protection services provided by the RCFD would be considered less than significant. Therefore, the conclusions of the FNA are consistent with the Response Criteria estimated value of 0.05 as indicated in the matrix.

4. Rescue: The FNA concludes that the demand for response to a technical rescue incident, including high angle rescue, low angle rescue, and confined space rescue, as a result of the RSEP would be eliminated through the incorporation of the consultant recommendations regarding: the requirement that, during construction activities that require the type of situations addressed by Cal/OSHA Standards Part 1910, Occupational Safety and Health Administration Safety and Health Regulations, the

contractor have a rescue team with NFPA 1670 level of training (Standard on Operations and Training for Technical Search and Rescue Incidents) available on-site for the extent of the construction activity; the requirement that, during operation, the daily on-site operational and maintenance personnel for the Central Receiver Tower have NFPA 1006 level of training (Standard for Technical Rescuer Professional Qualifications); and the requirement that, during operation, the contractor to perform the annual maintenance for the Central Receiver Tower provide evidence that their on-site personnel have NFPA 1670 level of training (Standard on Operations and Training for Technical Search and Rescue Incidents). Therefore, the addition of the RSEP to the RCFD service area would not require responses to technical rescue incidents by the RCFD. Therefore, the Response Criteria estimated value is 0.15, not 0.75 as indicated in the matrix.

5. EMS, EMS Response Time: The FNA concludes that the demand for emergency medical services as a result of the RSEP would be eliminated through the incorporation of the consultant recommendations regarding: the provision of contracting with a RCEMS certified company to provide Advance Life Support capabilities with equipment and supplies onsite and a Basic Life Support Ambulance with a California certified driver during construction activities; the provision of contracting with a RCEMS certified company to provide Advance Life Support capabilities with equipment and supplies during ongoing project operation; and contract with an air medical service to respond to a service request from an onsite RCEMS certified responder. Therefore, the addition of the RSEP to the RCFD service area would not require emergency medical responses by the RCFD. Therefore, the conclusions of the FNA are consistent with the Response Criteria estimated value of 0.15 as indicated in the matrix.

Total Score: Based on the assessment provided above, the corrected total score for the RSEP would be 1.10, not 2.00 as indicated in the matrix. However, as discussed above, the response criteria does not allow for a score of zero for categories where no impact would occur. In the case of the RSEP, a value of zero should be provided for 4. Rescue and 5. EMS, EMS Response Time, resulting in a total score of 0.80.

However, while the Matrix is useful for comparing projects it does nothing to assist in assessing impacts and clearly should not be used to assess some proportion of a cumulative impact to which RSEP does not contribute.

[Tables appended at Page 13]

SA/DEIS: Page 6.14-38, WORKER SAFETY 10 and WORKER SAFETY-11

WORKER SAFETY-10 During any construction activities, the project owner shall provide onsite:

- a) ~~an EMT-P (Paramedic) who is certified by~~ **A contract with a Riverside County Emergency Services (REMS) along with the appropriate Medical Service (RCEMS) certified company to provide advance life support capabilities with** equipment and supplies;
- b) a ~~Advanced~~**Basic** Life Support Ambulance with a California certified driver for use during medical emergency events; and
- c) a contract with an air medical service to respond to a request from an onsite EMT-P.

Verification: At least 30 days prior to the commencement of site mobilization, the project owner shall be provide to the CPM for review and approval:

- a) the name and contact information for ~~of~~ **the EMT-P company providing the RCEMS service.** The contact information of any replacement ~~EMT-P~~**the company** shall be submitted to the CPM within one business day, and provide evidence in each Monthly Compliance Report during commercial operation; and
- b) a letter to the CPM confirming that the Basic Life Support Ambulance is available and will be onsite during any construction activities and provide evidence in each January Monthly Compliance Report during construction; and
- c) proof of its contract for air medical service to the CPM for review and approval and provide evidence in each January Monthly Compliance Report during construction.

WORKER SAFETY-11 Beginning with commercial operation, the project owner shall provide onsite:

- a) ~~an EMT-P who is certified by Riverside Emergency Services (REMS)~~ **A contract with a RCEMS certified company to provide advanced life support services (ALS)** along with the appropriate equipment and supplies; and
- b) a contract with an air medical service to respond to a request from an onsite ~~EMT-P~~**responder**.

Verification: At least 30 days prior to the commencement of commercial operation, the project owner shall ~~be~~ provide to the CPM for review and approval:

- a) the name and contact information for the ~~EMT-P(s) to be working on each shift~~ **RCEMS certified company providing ALS.** The contact information of any replacement ~~EMT-P~~ **company** shall be submitted to the CPM within one business day, and provide evidence in each Monthly Compliance Report during commercial operation; and
- b) annually thereafter in the Annual Compliance Report, proof of its contract for air medical service to the CPM for review and approval.

TABLE 1**RICE SOLAR ENERGY PROJECT SUMMARY OF POTENTIAL EVENTS**

Event	Probability	Response
On-site Wildland Fire	Remote	Self-protect with RSEP resources
Off-site Wildland Fire	Remote	Support Riverside County Fire Department if requested
On-site Structure Fire	Extremely Low	Self-protect with automatic fire suppression systems and RSEP resources
Off-site Structure Fire	Remote	Support Riverside County Fire Department if requested
On-site Vehicle Fire	Remote	Self-protect with RSEP resources
Off-site Vehicle Fire	Low	Support Riverside County Fire Department if requested
On-site Vehicle Accident with Injury	Extremely Low	Self-protect with RSEP resources
Off-site Vehicle Accident with Injury	Low	Support Riverside County Fire Department if requested
On-site Injury of Personnel	Extremely Low	Self-protect with RSEP resources
On-site Building Collapse	Extremely Remote	Assess damage and injuries; call for outside assistance if needed
On-site Illness	Extremely Low	Self-protect with RSEP resources
On-site Multiple Injury Accident	Extremely Remote	Start triage with RSEP staff and call for outside assistance
On-site Mass Casualty	Extremely Remote	Start triage with RSEP staff and call for outside assistance
On-site Fuel Explosion	Remote	Self-protect with RSEP resources
On-site Technical Rescue	Extremely Remote	Self-protect with RSEP resources
On-site Hazardous Material Incident	Remote	Self-protect with RSEP resources
On-site Generator Turbine Fire	Remote	Self-protect with RSEP resources

Source: Pacific Development Solutions Group and Aurora Consulting, October 21, 2010.

The ranges of probability for this table are: high probability, moderate probability, low probability, extremely low probability, remote probability, and extremely remote probability.

TABLE 2

RICE SOLAR ENERGY PROJECT POTENTIAL EVENTS

- **On-site Wildland Fire:** There is a remote possibility for an on-site vegetation fire to occur or spread beyond the control of the RSEP resources. The State of California Department of Forestry and Fire Protection (CAL FIRE) Fire Perimeter Map indicates that there has been no wildland fires over 10 acres in size in the vicinity of the RSEP site since 1950. The RCFD would not need to respond with resources such that it would cause a drawdown of their resources.
- **Off-site Wildland Fire:** Off-site wildland fires would be the responsibility of the RCFD. The probability of an off-site wildland fire is remote due to the sparse fuel, lack of ignition source, and the historical lack of fires as indicated in the CAL FIRE Fire Perimeter Map.
- **On-site Structure Fire:** All structures on-site would be engineered steel or concrete and protected with an automatic fire sprinkler system or other type of fire suppression system. There would be an extremely low probability that a fire could overrun the sprinkler system. The RCFD would not need to respond with resources such that it would cause a drawdown of their resources.
- **Off-site Structure Fire:** There are very few structures in the area and they have no relationship to the RSEP.
- **On-site Vehicle Fire:** There is a remote probability of a vehicle fire on the RSEP site that could not be controlled with RSEP resources. RCFD would not need to respond with resources such that it would cause a drawdown of their resources.
- **Off-site Vehicle Fire:** There is a low probability of an off-site vehicle fire in the area. This type of event would be the responsibility of the RCFD.
- **On-site Vehicle Accident with Injury:** During construction activities and ongoing operation, the RSEP would have in place advanced life support capabilities with equipment and supplies. With the extremely low probability of on-site vehicle-related injuries and the ability of the RSEP to provide aid, there would be no drawdown of RCFD resources.
- **Off-site Vehicle Accident with Injury:** There is a low probability for off-site vehicle accidents with injuries in the area. The construction and ongoing operation of the RSEP would result in an insignificant increase in vehicle accidents with injuries (see attached tables; 3 through 6) on the roadways in Riverside County and the RCFD would not need to respond with resources such that it would cause a drawdown of their resources.

- **On-site Injury of Personnel:** During construction and ongoing operation, the RSEP would have in place advanced life support capabilities with equipment and supplies. With the extremely low probability of on-site injury of personnel and the ability of the RSEP to provide aid, there would be no drawdown of RCFD resources.
- **On-site Building Collapse:** The probability of a building collapse is extremely remote. If it were to occur, it would be handled by RSEP's on-site technical rescue teams. The RCFD may not have the local resources to respond to this type of incident and there would be no drawdown of their resources.
- **On-site Illness:** During construction and ongoing operation, the RSEP would have in place advanced life support capabilities with equipment and supplies. With the extremely low probability of on-site illness and the ability of the RSEP to provide aid, there would be no drawdown of RCFD resources.
- **On-site Multiple Injury Accident:** There is an extremely remote probability that there would be any kind of incident that would cause multiple injuries. If such an event occurred, RSEP staff would start triage and call for contracted help before utilizing the RCFD. With advanced life support capabilities, equipment, and supplies and the availability of outside resources, there would be no drawdown of RCFD resources.
- **On-site Mass Casualty:** There is an extremely remote probability that there would be any kind of incident that would cause mass casualties. If such an event occurred, RSEP staff would start triage and call for contracted help before utilizing the RCFD. With advanced life support capabilities, equipment, and supplies and the availability of outside resources, there would be no drawdown of RCFD resources.
- **On-site Fuel Explosion:** The only fuel on-site is diesel and it is protected by an automated fire protection system. Due to its high flash point and auto ignition temperature, there would be a remote probability of an incident or the need for the RCFD to respond to this type of event. There would be no drawdown of RCFD resources.
- **On-site Technical Rescue:** The probability of a technical rescue on-site would be extremely remote. If this type of event were to occur, it would be handled by RSEP's on-site technical rescue teams. The RCFD would not need to respond to this type of event and may not have the local resources to respond. There would be no drawdown of RCFD resources.
- **On-site Hazardous Material Incident:** The probability of an on-site hazardous material incident is remote. If this type of event would occur, it would be

contained on-site and handled by RSEP staff with no RCFD involvement. However, notification and inspection by the RCFD would be required, but the costs for this are paid on a case-by-case basis and can be handled on a non-emergency basis. There would be no drawdown of RCFD resources.

- **On-site Generator Turbine Fire:** The probability of an on-site generator turbine fire would be remote. If this type of event would occur, it would be contained on-site with the automatic fire suppression system and handled by RSEP staff with no RCFD involvement. There would be no drawdown of RCFD resources.

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TABLE 3**ACCIDENTS (INJURY AND NON-INJURY) ON ROADWAYS IN RIVERSIDE COUNTY WITHIN VICINITY OF RSEP SITE**

Roadway Link	Existing ADT ¹	No. of Reported Accidents ²			Highest No. of Accidents Over Period	Accident Rate ³
		2007	2008	2009		
Hwy. 62 west of Hwy. 177	500	0	7	2	7	0.0140
Hwy. 62 east of Hwy. 177, west of Rice	1,600	2	4	4	4	0.0025
Hwy. 62 east of Rice, west of Hwy. 95	1,600	0	0	0	0	0.0000
Hwy. 62 east of Hwy. 95	9,700	0	0	0	0	0.0000
Hwy. 95 between Hwy. 62 and Interstate 10	1,900	0	0	0	0	0.0000
Hwy. 177 between Interstate 10 and Hwy. 62	1,300	7	16	18	18	0.0138

Notes:

¹ Source: Caltrans Traffic and Vehicle Data Systems Unit, Webpage Name: 2008 All Traffic on CSHS (California State Highway System), URL Address: <http://traffic-counts.dot.ca.gov/2008all.htm>.

² Source: Statewide Integrated Traffic Records System, Data Run Date October 12, 2010.

³ Gross number of accidents per ADT per year for each roadway link, based on highest number of accidents during 2007-2009 divided by existing ADT.

TABLE 4**ACCIDENTS INVOLVING INJURIES ON ROADWAYS IN RIVERSIDE COUNTY WITHIN VICINITY OF RSEP SITE**

Roadway Link	Existing ADT ¹	No. of Reported Accidents ²			Highest No. of Accidents Over Period	Accident Rate ³
		2007	2008	2009		
Hwy. 62 west of Hwy. 177	500	0	4	2	4	0.0080
Hwy. 62 east of Hwy. 177, west of Rice	1,600	2	3	1	3	0.0019
Hwy. 62 east of Rice, west of Hwy. 95	1,600	0	0	0	0	0.0000
Hwy. 62 east of Hwy. 95	9,700	0	0	0	0	0.0000
Hwy. 95 between Hwy. 62 and Interstate 10	1,900	0	0	0	0	0.0000
Hwy. 177 between Interstate 10 and Hwy. 62	1,300	7	11	12	12	0.0092

Notes:

¹ Source: Caltrans Traffic and Vehicle Data Systems Unit, Webpage Name: 2008 All Traffic on CSHS (California State Highway System), URL Address: <http://traffic-counts.dot.ca.gov/2008all.htm>.

² Source: Statewide Integrated Traffic Records System, Data Run Date October 12, 2010.

³ Number of accidents involving injuries per ADT per year for each roadway link, based on highest number of accidents during 2007-2009 divided by existing ADT.

TABLE 5

POTENTIAL ADDITIONAL ACCIDENTS (INJURY AND NON-INJURY) ON ROADWAYS IN RIVERSIDE COUNTY WITHIN VICINITY OF RSEP SITE WITH CONSTRUCTION AND OPERATION OF RSEP

Roadway Link	Existing ADT ¹	Additional ADT Due to Project ²		Accident Rate ³	Potential Additional Accidents	
		During Construction	During Operation		During Construction	During Operation
Hwy. 62 west of Hwy. 177	500	87	10	0.0140	1.2	0.1
Hwy. 62 east of Hwy. 177, west of Rice	1,600	139	15	0.0025	0.3	0.0
Hwy. 62 east of Rice, west of Hwy. 95	1,600	387	36	0.0000	0.0	0.0
Hwy. 62 east of Hwy. 95	9,700	153	18	0.0000	0.0	0.0
Hwy. 95 between Hwy. 62 and Interstate 10	1,900	207	18	0.0000	0.0	0.0
Hwy. 177 between Interstate 10 and Hwy. 62	1,300	52	5	0.0138	0.7	0.1

Notes:

¹ Source: Caltrans Traffic and Vehicle Data Systems Unit, Webpage Name: 2008 All Traffic on CSHS (California State Highway System), URL Address: <http://traffic-counts.dot.ca.gov/2008all.htm>.

² Source: Rice Solar Energy Project Application for Certification, Section 5.12, Traffic and Transportation, October 2009.

³ Gross number of accidents per ADT per year for each roadway link (see Table 1).

TABLE 6

**POTENTIAL ADDITIONAL ACCIDENTS INVOLVING INJURIES ON ROADWAYS IN RIVERSIDE
COUNTY WITHIN VICINITY OF RSEP SITE
WITH CONSTRUCTION AND OPERATION OF RSEP**

Roadway Link	Existing ADT ¹	Additional ADT Due to Project ²		Accident Rate ³	Potential Additional Accidents	
		During Construction	During Operation		During Construction	During Operation
Hwy. 62 west of Hwy. 177	500	87	10	0.0080	0.7	0.1
Hwy. 62 east of Hwy. 177, west of Rice	1,600	139	15	0.0019	0.3	0.0
Hwy. 62 east of Rice, west of Hwy. 95	1,600	387	36	0.0000	0.0	0.0
Hwy. 62 east of Hwy. 95	9,700	153	18	0.0000	0.0	0.0
Hwy. 95 between Hwy. 62 and Interstate 10	1,900	207	18	0.0000	0.0	0.0
Hwy. 177 between Interstate 10 and Hwy. 62	1,300	52	5	0.0092	0.5	0.0

Notes:

¹ Source: Caltrans Traffic and Vehicle Data Systems Unit, Webpage Name: 2008 All Traffic on CSHS (California State Highway System), URL Address: <http://traffic-counts.dot.ca.gov/2008all.htm>.

² Source: Rice Solar Energy Project Application for Certification, Section 5.12, Traffic and Transportation, October 2009.

³ Number of accidents involving injuries per ADT per year for each roadway link (see Table 1).



BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
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**APPLICATION FOR CERTIFICATION
FOR THE RICE SOLAR ENERGY POWER
PLANT PROJECT**

Docket No. 09-AFC-10

**PROOF OF SERVICE
(Revised 8/5/2010)**

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DECLARATION OF SERVICE

I, Marie Mills, declare that on October 22, 2010, I served and filed copies of the attached, **RICE SOLAR ENERGY, LLC'S OPENING TESTIMONY PART 2, dated October 22, 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/ricesolar>].

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;

by delivering on this date, for mailing with the United States Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses **NOT** marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (*preferred method*);

OR

depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION

Attn: Docket No. 09-AFC-10

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.



Marie Mills