STATE OF CALIFORNIA

Energy Resources Conservation and Development Commission

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In the Matter of:

Application for Certification For the Genesis Solar Energy Project Docket No. 09-AFC-8

August 11, 2010

Staff's Reply Brief

In Response to CURE's Third Opening Brief, and Center for Biological Diversity's Opening Brief Addressing Issues Raised at the July 21, 2010 Evidentiary Hearing

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TABLE OF CONTENTS

INTR	ODI	JCT	TON	Page 1
DISC	USS	ION	۶	1
I.	R	espo	onse to CURE (Special Status Plants)	1
	A.	Sta	aff's Information Regarding the Baseline is Accurate	1
	B.	Sta Mi	aff Exhaustively Analyzed and Provided More than Sufficient atigation for Significant Impacts	2
	C.	Sta Sp	aff Required Feasible and Effective Mitigation for Impacts to ecial Status Plants	3
II	Re	spo	nse to Center for Biological Diversity (CEQA)	6
	A.	Pro	oject Description is Complete and Accurate	6
		1.	Licensing Industrial Solar Plants fulfills Commission Objectives and State Goals	6
		2.	Baseline Information Describes Existing Physical Conditions	7
	B.	Sta Mi	aff Exhaustively Analyzed and Provided More than Sufficient tigation for Significant Impacts	8
		1.	Staff Thoroughly Analyzed Biological Impacts	8
			a. Road Impacts	9
			b. Edge Effects; Invasive Species	9
			c. Sand Shadow; Mojave Fringe-toed Lizard	9
			d. Evaporation Ponds	9
		2.	Fire Threats and Impacts are Thoroughly Analyzed Where Appropriate	11
		3.	Staff's Consideration of Related Projects for Cumulative Effects Analysis is Appropriate for Each Discipline	12
		4.	The Project Triggers Low or No Growth-Inducing Impacts	12

5. The Project Triggers No Growth-Inducing Impacts	12
C. Alternatives More than Adequate Under CEQA and NEPA	13
D. Excepting Visual Resources and Land Use, All Significant Impacts are Mitigated	14
E. The Commission May Properly Override Impacts to Visual Resources and Land Use	14
III. Response to Center for Biological Diversity (LORS)	15
A. The Project is Consistent with All Laws, Ordinances, Regulations and Standards (LORS)	15
B. Overriding LORS Neither Proper Nor Necessary	15
CONCLUSION	15

TABLE OF AUTHORITIES

State Cases

Courts of Appeal

Sacramento Old City Association v. City Council (1991) 229 Cal. App.3d 1011, 1028-1029	2
Defend the Bay v. City of Irvine (2004) 119 Cal.App.4th 1261, 1275	2,5
King County Farm Bureau v. City of Hanford (1990) 221 Cal.App.3d 692	3
City Of Marina v. Bd of Trustees of Cal. State University (2006) 39 Cal.4 th 341, 368	14

California Statutes

Public Resources Code

Section 21000 subdivision (g)	5
Section 21061.1	14
Section 21081 subdivision (b)	14
Section 21080 subdivision (b)(4)	11

California Regulations

Title 14, Section 15151	1
Title 14, Section 15126.6 subdivision (a)	13
Title 14, Section 15126.(f) (1)	13
Title 14, Section 15131 (a)	13
Title 14, Section 15370	5

INTRODUCTION

On August 3, 2010, Intervenor California Unions for Reliable Energy ("CURE") filed a Third Opening Brief, and Intervenor Center for Biological Diversity ("CBD") filed an Opening Brief, in the Genesis Solar Energy Project ("Genesis Project") proceeding. This is Staff's Reply to both, excepting for Cultural Resources, for which Staff will file a separate Reply.

DISCUSSION

I. RESPONSE TO CURE (SPECIAL STATUS PLANTS)

A. <u>Staff's Information Regarding the Baseline is Accurate</u>

CURE's claim that Staff Assessments failed to provide an adequate environmental baseline regarding special status plants is completely unfounded.

Staff dedicated *50 pages* in the Revised Staff Assessment (Ex. 400, "RSA") to a comprehensive baseline description of the environmental setting, plant communities, and stream resources found on the Project site and in the Project vicinity. (RSA, C.2-12-62.) Adding to this already exceptionally thorough baseline, staff provided an *additional 17 pages* dedicated specifically to analyzing impacts to special-status plants (C.2-99-116), including an analysis and detailed description of all early and late-season plants known to occur within 50 or more miles of the Project site. A comprehensive list of *potentially* occurring plant species is found in Table 3. (C.2-22-23.)

Rigorous analysis was enhanced by an independent review of the databases and literature, herbarium records, and regular consultation with recognized experts. Staff consulted several times with local botanical experts who specialize in bimodal rain patterns and species that occur in eastern Riverside County. Staff made dozens of consultations with four recognized experts in the regional flora from September 2009 to June 2010. (E.g, C.2-101.)

Professional and comprehensive surveys at the site covered a two-year period (C.2-2), and for the handful of late-season plants with potential to occur in the Project area, Staff has analyzed impacts to late-season plants, if present, recommended comprehensive late season preconstruction surveys, and prescribed highly-detailed avoidance, minimization, and compensation measures in Condition of Certification BIO-19. (Exh. 445.) Staff concluded that the Genesis Project's impacts to many special-status plants are significant, and that avoidance, minimization, and compensation measures are required.

Staff's analysis is more than sufficient for the Committee to make "intelligent judgments" regarding the project. (Cal. Code Regs., tit. 14, § 15151.)

B. <u>Staff Exhaustively Analyzed and Provided More than Sufficient Mitigation for</u> <u>Significant Impacts</u>

CURE's claim that Staff failed to perform an adequate impact analysis and failed to develop an adequate mitigation plan for rare plants is completely unsupported by Staff's extensive, detailed analysis of the rare flora of the region.

Armed with a highly detailed baseline description further supplemented by multiple site visits, photographs, and independent review of databases, literature, herbarium records, and dozens of consultations with four experts in regional flora, Staff conducted an analysis of approximately 50 special-status plants known from the region. Staff analyzed, in elaborate detail, project impacts to the special-status plant species found during two years of spring surveys, and analyzed the impacts of the project to late-season plants with potential to occur (if present) based on known occurrences within a 50-mile region and the presence of suitable habitat. (RSA, C.2-99-116.) Such an approach is perfectly valid.

"[F]or the kinds of impacts for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process... the agency can commit itself to eventually devising measures that will satisfy specific performance criteria articulated at the time of project approval. Where future action to carry a project forward is contingent on devising means to satisfy such criteria, the agency should be able to rely on its commitment as evidence that significant impacts will in fact be mitigated."

(Sacramento Old City Assn. v. City Council (1991) 229 Cal.App.3d 1011, 1028-1029.)

To cope with species that only *might* grow on the site, Staff took an exceptionally conservative approach, analyzing every possible scenario of the fall pre-construction survey. Staff devised Condition of Certification BIO-19 (Exh. 445) in great detail, with performance standards to ensure that any species found, including new, undescribed species, or plants with local or regional significance, would be mitigated to a level of less than significant. Staff also solicited a peer-review of the Condition from other agency botanists.

"[D]eferral of the specifics of mitigation is permissible where the [agency] commits itself to mitigation and lists the alternatives to be considered, analyzed and possibly incorporated in the mitigation plan." (*Defend the Bay v. City of Irvine* (4th Dist. 2004) 119 Cal.App.4th 1261, 1275.) Like the mitigation in *Defend the Bay*, Staff crafted measures that included avoidance of impacts (RSA, C.2-248-255; Exh. 445, Sections A, C) minimization of impacts to habitat (Section A), performance standards (E.g., RSA, C.2-255-260), monitoring and management verifications (RSA, C.2-260-262; Exh. 445, Sections A.2.g, D.1, D.3), with review and approvals by the lead agency and other responsible agencies (E.g., B.5, C.4).

BIO-19 defines performance standards for mitigation (Section D), under what conditions mitigation would be required (Sections C, D), and other details essential to ensure that significant impacts will be detected and mitigated. The performance standards include future requirements for restoration and selection criteria for habitat acquisition. (Section D.) Finally, Staff addressed

and provided a contingency measures in the rare event that no restoration or acquisition opportunities would be available. (Section D, Verification.)

CURE's claim that Staff did not analyze impacts to special-status plants "actually present" (CURE's Third Opening Brief, p. 11) is completely unsupported, and refuted by a baseline that includes elaborately detailed descriptions of the six rare species found on the ground during two years of surveys, and another seven species with moderate-to-high potential to occur based on regional occurrence (RSA C.2-25-34; Table 3, C.2-22-23; Table 4, C.2-49-54; C.2-99-122.)

CURE's use of *Kings County (Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692) draws an irrelevant comparison. *Kings County* concerns cumulative impacts and the lack of discussion in the environmental review about what projects were contributing to cumulative impacts or what those impacts were. Here, Staff has written nearly 75 pages of baseline, impacts analysis and mitigation *dedicated specifically to special-status plants*, flying in the face of CURE's contention that the record contains "no evidence" that the Committee could make a finding that mitigation avoids or substantially lessens the effects of the project on special-status plants. (CURE Third Opening Brief, p. 12.) That is precisely what BIO-19 accomplishes, allowing the Committee to make such a finding.

BIO-19 requires detailed location data for any plants found during the fall surveys. Staff will receive the data and the draft special-status plant plan no more than two weeks following the completion of the surveys, and no less than 30 days prior to the start of construction. (Exh. 445.) The Condition requires that all special-status plants in proximity of the Project be protected by avoidance and minimization measures. (*Id.*, Section A.) Thresholds of significance for impacts to late-season rare plants, if detected, are clearly and measurably defined, based on status, rarity, local and regional significance. (Section C.) Clear and measurable performance standards for the mitigation of significant impacts are provided. (Section D)

Staff conducted an exceptionally rigorous analysis of cumulative effects to Biological Resources, dedicating 33 pages of text and tables, with 23 figures mapping habitat around the site. (RSA, C.2-139-173; Figures 1-23.) Staff included measures for addressing cumulatively considerable impacts, listing related projects in BIO-Table 9 (RSA, C.2-151) and showing impacts in Figures 1 and 2. The Weed Management Plan (BIO-14, RSA, C.2-240-241) mitigates for cumulatively considerable impacts, as do components of many other conditions (E.g., BIO-7 (Biological Resources Mitigation Implementation and Monitoring Plan), BIO-8 (Impact Avoidance and Minimization Measures), BIO-22 (Mitigation for Impacts to State Waters), and BIO-23 (Decommissioning and Closure Plan).

C. Staff Proposes Feasible and Effective Mitigation for Impacts to Special Status Plants

Condition BIO-19 includes with abundant specificity, clear and measurable performance standards. It is made up of four components:

 Section A: Avoidance and Minimization Measures designed to avoid accidental impacts to plants occurring outside of and within 100 feet of the Project Disturbance Area during construction, operation, and closure;

- 2) Section B: Late Season Botanical Survey Guidelines for pre-construction fall surveys in 2010;
- 3) Section C: Triggers for Mitigation of any special-status species found, based on their status and rarity, local and regional significance; and
- 4) Section D: Detailed Specifications and Performance Standards for On-site Avoidance and Off-site Compensatory Mitigation

(Exh. 445.)

CURE oversimplifies BIO-19 and misstates that the Condition does not require fall surveys. (CURE's Third Opening Brief, p. 14.) The Condition states "Fall-blooming perennials that respond to the cooler, later season storms... shall only be required if blooms and seeds are necessary for identification or the species are summer-deciduous and require leaves for identification." This language simply prevents unnecessary surveys. If the species can be detected by flowers or fruit, then it would already be detected during the spring surveys. It may be otherwise detected in the fall; flowers and fruit are not the diagnostic features for all species. The Applicant understands that BIO-19 requires fall surveys. Staff assures the Committee that this is not a "loophole" for a waiver of the survey requirement, as mischaracterized by CURE.

CURE misstates there is "no requirement" for avoidance. (CURE's Third Opening Brief, p. 14.) First, the "Permanent Project Disturbance Area" in the Condition refers only to the solar fields and does not include the many miles of transmission lines, pipelines, temporary and permanent roads associated with the Project. (Exh. 445,Sections C.1.b, C.1.d.) *Avoidance is mandatory on all linears* (roads, pipelines, transmission lines, and associated components) (Sections A, C.). The Applicant requested an exception in circumstances where avoidance would result in significant impacts to other resources. (Section C.1.b.) Staff accepted this edit based on experience that the potential for this to preclude avoidance of a rare plant occurrence is low. Linears can be shifted in one direction or another, and poles locations can be similarly adjusted; pipeline work areas can be narrowed for short reaches.

Second, Staff originally specified mandatory avoidance on any portion of the Project, including the solar fields, for impacts exceeding 25% of the total population of Rank 1 and 2 plants. During prehearing discussion, Evidentiary Hearings, and the Committee-ordered workshop on July 13, Applicant testified that avoidance on the solar fields was infeasible; logistically, economically, and technically. (See e.g., Transcript (July 12, 2010) pp. 70-75.) Staff testified that off-site mitigation could be considered if the mitigation achieved a rescue of an occurrence threatened with extinction from invasive weeds, off-highway vehicles, or other causes. (*Id.* at pp. 183-184.)

Staff considered the potential for Rank 1 species to occur on the solar fields, and based on expert opinion that the potential for Abram's spurge and other late-season plants to occur on the solar field was low (Silverman, pers. comm.), Staff concluded that with appropriate performance standards for mitigation through restoration, impacts to a Rank 1 could be mitigated off-site to a level less than significant. Although avoidance is usually preferred, CEQA guidelines allow for other forms of mitigation, including minimizing impacts; rectifying the impact by repairing,

rehabilitating, or restoring the impacted environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and compensating for the impact by replacing or providing substitute resources or environments. (Tit. 14, § 15370.)

During analysis of cumulative impacts to plants and associated opportunities for off-site mitigation (RSA, C.2-103; see Exh. 445, Section D.III), Staff reviewed the ownership and management opportunities for Abram's spurge, the only Rank 1 plant with potential for occurrence on the Genesis Project site, and found that there were opportunities to rescue local populations immediately threatened from Sahara mustard invasion, a recognized ecological threat to many rare plants in the region.

Additionally, the Center for Biological Diversity had suggested that the Energy Commission consider restoration as an alternative to acquisition for mitigation of rare plants. (Ileene Anderson, Desert Renewable Energy Conservation Plan workshop, April 22, 2010.) Staff revised the BIO-19 avoidance requirement during the July 13, 2010 workshop to allow off-site mitigation on the solar fields but require avoidance on the linears.

During the Ivanpah proceedings, the California Native Plant Society recommended a distribution study as an alternative mitigation option, to identify opportunities for acquisition and restoration. Courts have allowed future studies when the mitigation clearly defines the performance standards or a desired future condition; includes details and specifics (who, what, where and when); and the agency commits to achieving it (in this case through verifications and reporting requirements). (*Defend the Bay v. City of Irvine, supra,* 119 Cal.App.4th at p. 1275.) Staff concluded that if the import of the study was to identify opportunities for future protection and restoration, and if the data was made available in the state database and made available to resource agencies, conservation groups, and other interested parties, that the study could provide information crucial to the future survival of the species.

Staff intends the study only *as a contingency measure*, in the unexpected and rare event that no opportunities for mitigation through acquisition or restoration were available. Staff provided ample details and specificity for the content of the plan, including goals and objectives, and designed the plan outline to be equivalent to an endangered species recovery plan. Staff included a timeline and reporting requirements for the study. Studies are subject to the review and approval of staff.

In conclusion, the Committee should ignore CURE's attempts to distract from Staff's thorough analysis of special-status plants. Staff exhaustively analyzed the baseline, impacts, and cumulative impacts, and formed mitigation that is appropriate, feasible, and oriented toward the maximum preservation of resources. CEQA requires such protection. (Pub. Resources Code, § § 21000(g).)

II. RESPONSE TO CENTER FOR BIOLOGICAL DIVERSITY (CEQA)

A. Project Description is Complete and Accurate

Staff agrees with the Center for Biological Diversity ("CBD" or "Center") that a project description must be accurate to evaluate impacts—a study floor for the construction of the environmental review. However, not only is the project description, some 40 pages in the general description alone, complete and accurate (excepting for minor last-minute changes regarding Applicant's abrupt but welcome acceptance of dry-cooling), CBD conflates policy calls with CEQA to try to attack Staff's considerable work in evaluating the project. Staff's mission is not to make policy but to carry out policy goals made by the Commission, the Resources Agency, the Legislature, and the Governor.

1. Licensing Industrial Solar Plants Fulfills Commission Objectives and State Goals

As Deputy Director Terry O'Brien stated in his testimony (Exh. 437), among other crucial goals, solar plants will help meet California's renewable portfolio standard (RPS) of 33 percent in 2020 as well as AB 32 greenhouse gas emission reduction goals. Apparently, CBD would not want to place any solar plants in the desert, in spite of the high solar values it offers, the acreage required to make industrial solar viable, and the critical need to make renewable energy happen. In some cases, a particular project's value in cutting greenhouse gases and generating renewable energy may not be worth the impacts it creates. As Mr. O'Brien pointed out, Staff's recommendation to license the Genesis project "should not be read as a blanket endorsement of all solar projects." Not all projects stand up to environmental review. After months of thorough discovery, careful evaluation, twenty workshops, three days of hearings, and three rounds of briefs, Genesis does.

CBD also misunderstands Staff is not working in a vacuum and has coordinated with other agencies, most importantly the BLM, to evaluate the project. CBD insists "fast-track solar projects (and other large-scale solar projects) are each reasonable alternatives to the other" (CBD Opening Brief, p. 3) while opposing Staff's statement that they are not. (RSA, B.2-54.) The referenced statement is BLM policy. Early on, BLM informed Energy Commission Staff that it cannot use one proposed project as an alternative to another because both agencies must evaluate each application on its own merits. Moreover, the Energy Commission does not compare active applications to each other because it does not have the authority to require an applicant to move the proposed project to another location, even if it identifies an alternative site that meets the project objectives and avoids or substantially lessens one or more of the significant effects of the project. Implementation of an alternative site would require that the applicant submit a new or supplemental Application for Certification (AFC), including revised engineering and environmental analysis. (RSA, B.2-21.)

2. Baseline Information More than Sufficiently Describes Existing Physical Conditions

CBD's claim that the Revised Staff Assessment ("RSA") did not establish an adequate baseline in order to determine biological impacts of the Project to summer/fall blooming plant species and wildlife such as golden eagle and Mojave fringe-toed lizard is wrong. (CBD's Opening Brief, p. 4-5.) Staff agrees that the information should reflect "real conditions" on the ground, as far as is feasible to determine within a reasonable time frame, and that inadequate baseline may lead to poor impact analysis (*Id.* at p. 4), but that is hardly the situation here. CBD's brief amounts to a "throw it to the wall and see if it sticks" approach, with vague attacks on Staff Assessments that fail to hold up to scrutiny.

Staff thoroughly described the existing setting for the Genesis site for plants and wildlife resources and the natural processes that distinguish the biological environment. RSA Section C.2.4.1, Setting and Existing Conditions, outlined the regional setting of the Project in the northeastern portion of the Chuckwalla Valley and in relation to the Northern and Eastern Colorado Desert Coordinated Management Plan (NECO) area, as well as the vegetation communities and wildlife that characterize the site regionally and site-specifically. (RSA, C.2 12-21). This section also discussed natural processes that characterize the site both locally and regionally, including a discussion of sand transport corridors, hydrological regimes, and noxious weed invasions. (*Ibid.*)

Regarding special-status plants, see Part I above for detailed responses regarding Staff's accumulation of baseline information, as well as analysis and mitigation. Also, to clarify discussion of the baseline, impacts to species and related habitat, and mitigation are discussed together for each species.

As for the golden eagle, Staff looked at a 140 mile radius of the site, the USFWS-recommended buffer for estimating habitat loss potentially impacting the golden eagle. (RSA, C.2-149-153.) Staff also reviewed eight habitat types in the NECO Plan that provide suitable foraging habitat values for golden eagles. (*Ibid.*) Staff performed a thorough analysis of the Project's direct, indirect, and cumulative effects to golden eagle. (RSA, C.2-41-42, C.2-65-66, C.2-89-90, C.2-149-153, BIO-28, C.2-277-279.) Staff looked at the cumulative effects of golden eagle foraging habitat loss of all past, present, and future projects in the region. (RSA, C.2-8C.2-149 to153.)

Staff then developed Condition of Certification BIO-28 in coordination with BLM, California Department of Fish and Game, and the U.S. Fish and Wildlife Service. (RSA, C.2-277-279.) At the time the RSA was prepared, Staff lacked results from spring 2010 focused golden eagle nest surveys, but Staff was able to review those results in the Supplement. (Ex. 403, C.2-1-2.) No occupied nests were found within 10 miles of the Genesis site. (*Ibid.*) Recognizing that fact, Staff then worked closely U.S. Fish and Wildlife, Department of Fish and Game, and the Applicant to revise BIO-28 in accordance with the Eagle Act. The Condition now requires ground surveys within a one mile radius of the project site. (Exh. 435.) BIO-28 will fully mitigate for Project construction and operation impacts to golden eagle nesting territories that occur in the Project area.

The most glaring example offered regarding the alleged lack of baseline information is that of the desert tortoise. As CBD noted, any party has a right to intervene on the last possible day, but CBD's ignorance of the numerous, lengthy and detailed workshop discussions they did not participate in is demonstrated through this claim. CBD completely fails to note a significant

concession on the part of the Applicant, which argued for months that at most, approximately half the site constituted poor desert tortoise habitat. (RSA, C.2-79 to 80.) Following numerous public workshops, the Applicant finally accepted a 1:1 ratio for compensation in spite of its initial beliefs, because *biologists from all four affected agencies* (CEC, BLM, DFG, USFWS) agreed that 1:1 was the appropriate mitigation ratio. (Transcript (July 12, 2010) pp.52-53.) The flip side of this coin is that by accepting a 1:1 ratio, the biologists were united in their estimation that the habitat was indeed poor; otherwise, they would have reasonably demanded a higher ratio.

Staff established a complete baseline for the tortoise, including a discussion of its local status and regional status in the Colorado Desert Recovery Unit, management of the species and its habitat under the NECO Plan, and treatment in the *Desert Tortoise (Mojave Population) Recovery Plan.* (RSA, C.2-34-37.)

Staff relied on this well-established baseline data, along with consultation with U.S. Fish and Wildlife Service, Department of Fish and Game, and BLM biologists, to develop analysis of the Project's impacts. (RSA, C.2-76-85.) Staff evaluated the Project's direct habitat, including loss of habitat and critical habitat (C.2-79-82), and linked those results to the calculation of habitat acquisition and security required for habitat compensation. (*Ibid.*) Staff examined a variety of indirect effects to desert tortoise, including impacts directly related to translocation and relocating activities, predation by ravens, increased traffic and roadkill effects, and habitat modification from noxious weed invasions. (C.2-82-85.)

In all, Staff developed four Conditions of Certification, BIO-9, BIO-10, BIO-11, and BIO-12, specifically to mitigate Genesis Project impacts to desert tortoise, as well as BIO-13, a condition that requires the Applicant prepare a Raven Management Plan to reduce the Project's potential of increasing tortoise predation. (RSA, C.2-226-240.) Of these, BIO-12 (Desert Tortoise Compensatory Mitigation) includes specific criteria for lands acquired for desert tortoise mitigation, which are directly related to promoting regional landscape-level, habitat connectivity for this species. BIO-12 was developed by Staff in consultation with BLM, DFG, and USFWS biologists with the aim of protecting large blocks of land in the Colorado Desert Recovery Unit.

- B. <u>Staff Exhaustively Analyzed and Provided More than Sufficient Mitigation for</u> <u>Significant Impacts</u>
 - 1. Staff Thoroughly Analyzed Biological Impacts

See above discussions regarding special-status plants (Part I), golden eagle and desert tortoise (Part II.A.)

a. Road impacts

Admittedly there was confusion during Evidentiary Hearings about how much control the Project owner would have over road access while complying with BLM regulations. Regardless, the entire site will be "fenced appropriately to restrict public access during construction and operations." (RSA, B.1-16.) Measures would provide appropriate levels of security to protect electrical infrastructure from malicious mischief, vandalism, or domestic/foreign terrorist attacks. (*Ibid.*) Biology Staff considered and analyzed access road impacts as it considered impacts from all linear facilities. (E.g., C.2-13, 35, 64, 70, 74-77, 83-87, 102, 104-105, 110-111, 113, 126.) Staff also evaluated the second, "spur" road that is no longer needed. (Exh. 403, C.2-2-3.)

Off-road vehicle use is already illegal on the site (RSA, C.6-6), but a possible increase was noted and considered by Staff biologists. (RSA, C.2-26-27, 31, 37, 102, 104-105, 110, 112, 125; Exh. 403, Supplement, C.2-5, 6.) Moreover, limiting off-road vehicle use on BLM-administered lands is a determination to be made by the BLM. (Transcript (July 12, 2010) pp. 248-249.)

b. Edge Effects; Invasive Species

CBD's claim that Staff did not fully evaluate the effects of edge effects on habitat is incorrect. Staff indeed evaluated the potential for edge effects to habitats. (RSA, Section C.2.8.) Staff considered specific edge effects including the effects of habitat fragmentation for desert tortoise, American badger, desert kit fox, burrowing owl, Le Conte's thrasher, golden eagle (*ibid.*), and in the cumulative discussion of natural communities (C.2-160-162). To evaluate the Project's cumulative contribution to edge effects and habitat fragmentation, Staff conducted a detailed and quantitative analysis, using GIS-based datasets for vegetation, landforms, soils, watersheds, California Natural Diversity Database occurrences, and the USGS desert tortoise habitat model. (Section C.2.8.)

CBD's claim that Staff did not fully evaluate impacts of invasive species is likewise incorrect. To address the Project's contribution to invasive weed species invasion, increased roadway traffic, and raven subsidies, staff developed BIO-13, BIO-14, and parts of BIO-8 to mitigate the Project's adverse, long-term effects to sensitive biological resources.

c. Sand Shadow; Mojave Fringe-toed Lizard

CBD's analysis of the sand shadow habitat is cursory and unsupported, e.g. nothing is cited to support their assertion that impacts to the lizard would "likely" range far beyond the sand shadow model. (CBD Opening Brief, p. 7.) Staff hired a sand transport specialist, or Geomorphologist, Dr. Andrew Collison, to evaluate sand shadows and impacts to Mojave Fringe-toed Lizard habitat. To again aid discussion, CBD's assertions regarding the lizard are addressed here in one section.

Staff described the location of the Project in a regional sand transport system (RSA, Biological Resources Appendix E, p. 18; Figure 17) and related the importance of this system and sand dune habitat to a number of dune-habitat specialists, primarily the Mojave Fringe-toed Lizard, a BLM Sensitive species, as well as other plant and wildlife species covered under the NECO Plan as required by CEQA. (RSA, C.2-19-20.) Staff discussed direct impacts (C.2-73-76), as well as indirect impacts to this species habitat. (RSA, Soil & Water Appendix E.).

CBD claims staff "withdrew" mitigation for the sand shadow area "not to any change" but because of Applicant's survey data. (CBD's Opening Brief, p. 7.) This is absurd on its face. Staff welcomes surveys and other new information to refine mitigation, as it should. The Applicant provided additional survey results and habitat information supporting that the

downwind "sand shadow" area does not provide suitable habitat for Mojave Fringe-toed Lizard, because no lizards were found, as well as the lack of suitable habitat parameters and absence of other dune-associated species such as ribbed cryptantha. Based on those findings, Staff revised Condition of Certification BIO-20, concluding the calculation of the lizard's indirect impacts should be reduced by 76 acres. (Exh. 435, p. 28.)

To explain in detail, for the Genesis Project, the boundary of the sand transport system is especially hard to define since it forms a gradual rather than sharp transition. Staff noted that "defining the boundaries of wind corridors is somewhat subjective" and therefore took a conservative analytical approach from the start. (Biological Resources Appendix E, p. 19 (using conservative assumptions of sediment transport rates and using more conservative NECO corridor classification).) That approach resulted in the need for mitigation, however, new evidence convinced Staff to move the sand transport corridor boundary south, away from the project area, thus removing the need for mitigation.

First, review of additional aerial photographs (Exh. 427) provided clearer evidence of the sand corridor boundary than the images used in the RSA, and showed that the sand corridor and the dune areas likely to be lizard habitat lay further south than originally mapped. Second, the Applicant's survey results for associated plants provided supporting evidence that the lizard were not found in the area that was originally mapped as a sand shadow. (Transcript (July 12, 2010) pp. 83-85, 222-227.) These two pieces of evidence led Staff to conclude that the sand transport corridor and the area of potential lizard habitat were further south than originally assumed, and to remove the mitigation requirement. Estimates of up to a 6% reduction in sand transport capacity became overly conservative. Staff no longer believes that the project intrudes into the sand transport corridor or causes an impact to downwind dunes.

Furthermore, CBD ignores that the *Applicant voluntarily changed the project design to reduce impacts to the lizard*. (Transcript (July 12, 2010, p. 85.) Again, the review process worked as it should, with the Applicant feasibly changing the design of their project specifically to help reduce impacts as identified by Staff.

Finally, staff consulted with five local experts to develop Condition of Certification BIO-20 (Exh. 435, p. 28) and specific habitat acquisition criteria (e.g., lands in the Chuckwalla Valley, near large blocks of land either currently occupied or planned for protection) in order to promote landscape level habitat connectivity for this species and other dune-habitat specialists.

d. Evaporation Ponds

CBD's claim that Staff did not accurately evaluate the effects of evaporation ponds on wildlife while primarily referencing the McCrary study is not accurate.

Staff evaluated the effects of the Project's evaporation pond on wildlife including migrating waterfowl and shorebirds. (RSA, C.2-99.) The McCrary study, which was performed in an area which supports more natural, non-degraded desert habitat, refers to a different type of solar technology and different habitat types than that which occurs in the Genesis Project area; it is misleading to compare the two sites. The Genesis site does not support large areas of

surrounding agriculture or existing evaporation ponds and therefore fewer shorebirds and waterfowl naturally occur in the area than the area of the McCrary study.

Regardless, BIO-21 which requires the applicant to install netting over the evaporation ponds to prevent migrating or over-wintering waterfowl from lingering near the proposed evaporation ponds. (RSA, C.2-264-254.) Nets greatly reduce the habitat value to these bird species.

2. Fire Threats and Impacts are Thoroughly Analyzed Where Appropriate

CURE's accusation that Staff failed to assess the potential for fire threats to wildlife is again inaccurate. Staff discussed the existing weeds and their impacts (RSA, C.2-93-95), noting that noxious weed invasions may increase potential for wildfires. As such, staff developed BIO-14 (C.2-240-241, Exh. 435) which requires the Applicant to prepare a Weed Management Plan to prevent and monitor the spread of noxious weeds during Project construction and operation. In the Cumulative effects section, Staff considered the effects of wildfire on most plant and wildlife species, in addition to vegetation communities (E.g., RSA, C.2-85, 94, 111-112, 147, 153.)

Regarding fire protection, Staff provided more than sixteen pages of testimony (RSA, C.14-4, 8, 9, 18-24, 31; Exh. 402 (Staff Rebuttal) pp. 35-39) describing and analyzing the risk of fire, the potential impacts, and mitigation. Staff has focused on *prevention* using engineering and administrative controls, as well as response from on-site automatic fire suppression systems, response from on-site personnel when a fire is in the incipient stage, and response from the offsite Riverside County Fire Department.

Staff has ensured that the Fire Department would be able to respond under any conditions with overwhelming fire suppression equipment, regardless of the status of the roads in the area, and Staff has ensured at least two ways to reach the site. (RSA, C.14-19; Exh. 436, WORKER SAFETY-6.) Staff also provided background information on existing solar power plants using Therminol as the heat transfer fluid (RSA, C.14-20-22) and developed an Emergency Response Matrix to assess the relative risk of a fire and the need for other emergency response at the proposed Genesis site (Exh. 402, p. 39.) Staff concludes that with mitigation, the risk of fire spreading beyond the boundary of the site is less than significant.

Regarding impacts potentially created by all-terrain fire trucks, as Staff noted in its first Reply ((Aug. 2, 2010), p. 7), CEQA provides an exemption from analysis for emergencies. Specific actions "necessary to prevent or mitigate an emergency," such as sending fire trucks into the Genesis project site, are exempted from CEQA requirements. (Pub. Resources Code, § 21080, sub. (b)(4).

Futhermore, analysis of impacts to biological resources resulting from emergency use of allterrain fire engines to be so speculative as to be useless. First, the chances of needing this specialized fire truck are low; a second access point to the site is required by the California Fire Code and the County (the authority having jurisdiction for fire rescue operations). (RSA, C.14-19.) Second, the need to drive off-road cannot be quantified nor can the impacts be assessed because it is unknown where or for how long a distance an all-terrain fire truck will be required to drive off-road during an emergency. Staff does not expect any training to include off-road travel. Lastly, and contrary to CBD's claim, Staff has more than adequately addressed the issue of a fire prevention and protection plan. (RSA, C.14-18-20.) Staff clearly stated that the project will rely on both on-site fire protection systems and local fire protection services. The on-site fire protection system provides the first line of defense for small fires. In the event of a major fire, fire support services, including trained firefighters and equipment for a sustained response, would be provided by the Riverside County Fire Department.

Staff is also proposing two Conditions of Certification, WORKER SAFETY-1 and-2 (RSA, C.14-32-33), that would require the project owner to prepare and implement Fire Protection and Prevention Programs – one for construction and another for operations. Furthermore, these two conditions would require the project owner to submit the draft plans, prior to construction and operation of the project, to staff and the Fire Department in order to confirm the adequacy of the proposed fire protection measures, including measures to prevent the escalation or spread of a fire. (C.14-8-9.)

3. Staff's Consideration of Related Projects for Cumulative Effects Analysis is Appropriate for Each Discipline

CBD calls for Staff to include all proposed large-scale solar and wind projects across the California desert, whether on BLM land or private land in the cumulative impacts analysis. Staff did so. Each author defined the appropriate geographic area of analysis for the discipline, potentially including projects along the I-10 corridor and larger scale cumulative impacts within the California Desert as a whole. See, for example, the section on Land Use, where Staff concludes that the Genesis Project combined with "other past and reasonably foreseeable future projects [would] substantially reduce scenic values of wilderness areas and recreational resources in the Chuckwalla Valley and *southern California desert region* and therefore, would result in a significant and unavoidable cumulative land use impact in this regard." (RSA, C.6-33, italics added.)

See also Biological Resources Table 5 for an overview of cumulative impacts for each species (RSA, C.2-64-67), as well as the 40 pages of Biological Resources cumulative impacts analysis (C.2-133-173.)

4. The Project Triggers Low or No Growth-Inducing Impacts

Building one main road dedicated and secured by the Project (RSA, B.1-16), is highly unlikely to induce growth-inducing impacts in such a remote area. CBD ignores the facts presented in the Socioeconomic Analysis that the Project's pool of construction employees would largely be made up of commuters (Exh. 403, Supplement, C.8-3, 7-8) and that the few permanent employees, 40-50 of them, would not trigger growth. (Exh. 403, C.8-10,11.) This area has faced high unemployment for years; there are skilled workers who already live there to fill the jobs. (Exh. 403, C.8-8.) Cumulative effects are expected to be less than considerable, as projects that are built will likely have staggered construction schedules, and the number of employees for operations is similarly low. (Exh. 403, C.24-31.)

C. Alternatives are More than Adequate Under CEQA and NEPA

CEQA requires consideration of a *reasonable* range of alternatives that meet the CEQA screening criteria. (CEQA Guidelines, tit. 14, § 15126.6 (a)). CEQA does not require lengthy analysis of all potential alternatives to a proposed project. The analysis is governed by the "rule of reason." (*Ibid.*).

Using fast-track solar projects as alternatives to each other is discussed above; to recap, BLM policy prohibits it; and the Commission does not consider competing AFC's against each other because it does not have the authority to require an applicant to move the proposed project to another location. Implementation of an alternative site would require that the applicant submit a new or supplemental Application for Certification (AFC), including revised engineering and environmental analysis. (RSA, B.2-21.)

CBD asserts that the dry-cooling alternative, having been accepted, does not provide a sufficient range of alternatives. Again, the process worked, and CBD is straining to find fault.

Staff considered *twenty-five* alternatives to the project. (RSA, Section B.2.) Staff assessed six alternative site locations or configurations, a range of different solar and renewable technologies, generation technologies using different fuels, and conservation/demand-side management. Staff testimony at hearings further explained why industrial solar is a valid technology to meet California's renewable energy goals. (Transcript (July 13, 2010) pp. 93-130.) Three alternatives were evaluated in detail: the dry cooling alternative, the Reduced Acreage Alternative, and the No Project Alternative, for each applicable discipline.

CBD is correct in that, during evaluation of the Gabrych Site, Staff found it is possible to acquire sufficient private lands to make up a 250 MW solar project. (RSA, B.2-23.) However, the definition of feasibility under CEQA includes evaluation of economic circumstances. (CEQA Guideline, § 15126 (f)(1).) A private land alternative cannot meet the Applicant's nor the Energy Commission's goal of stimulating renewable energy resource production in California this year. To attract Applicants for pioneering projects, and for those Applicants to make renewable energy economically feasible, Staff validly included Applicant's potential qualification for ARRA funds as an Energy Commission objective. (B.2.4.2.) That requires the Applicant to start construction or meet the economic performance guidelines by December 31, 2010.

In regards to other economic analysis, CEQA does not require consideration of economic issues that do not have physical implications. (CEQA Guideline, § 15131 (a).) Even so, testimony at the Evidentiary Hearing discussed alternative technologies and their feasibility in comparison to this project. (Transcript (July 13, 2010), pp. 93-130.) Also, the Applicant stated that 250 MW size is optimal for an economically viable project. (RSA, B.2-15.) Nevertheless, Staff did not reject any alternatives based on the Applicant's statement that an alternative was infeasible.

For example, Staff did not reject a distributed renewable alternative based on cost alone. The cost of the distributed solar technology is one of many factors that contributed to the feasibility challenge of the alternative. (RSA, B.2-69.) Staff quoted the 2009 Integrated Energy Policy Report, stating that solar Photovoltaic has shown dramatic cost reductions and is expected to show the most improvement in the future, perhaps bringing capital costs within the range of natural gas-fired plants. (*Ibid.*) Staff acknowledges that achieving 250 MW of distributed solar is likely over the coming years; however, the very limited number of existing facilities make it difficult to conclude with confidence that it will happen soon. As a result, Staff eliminated this from further analysis.

Finally, Staff labored to find ways to avoid impacts, including avoidance of habitat fragmentation and edge effects, alleged growth effects, and other so-called incompatibility with land uses in the proposed project and the accepted alternative. CBD's assertion ignores inconvenient facts, such as Off-Road Vehicle use is banned in the area; the site borders a Wilderness Area that would remain untouched; and that the site is on public land and it is BLM's ultimate call regarding land uses via amendments to existing plans (see RSA, A-5). Furthermore, the site is located on land designated as multiple use class, moderate, allowing for such amendments for an industrial solar plant. (RSA, C.6-6, 12.)

D. Excepting Visual Resources and Land Use, All Significant Impacts are Mitigated

All significant impacts are avoided, minimized, or mitigated, excepting cumulative impacts for Land Use and Visual Resources. Staff explained these impacts and what the standards are to override them in favor of other considerations in Staff's Opening Brief of July 26, 2010.

To very briefly summarize, because of California and U.S. Department of Interior ambitions to develop industrial solar plants in this area, planned renewable development will impact hundreds of thousands of acres. It is not feasible to mitigate cumulative impacts visually for the Chuckwalla Valley, nor for land use across the region.

E. The Commission May Properly Override Impacts to Visual Resources and Land Use

Again to summarize Staff's Opening Brief, CEQA allows a lead agency to override unmitigable impacts in favor of well-considered benefits, including economic ones. (Pub. Resources Code § 21081, subd. (b); *City of Marina v. Bd. of Trustees of Cal. State Univ.* (2006) 39 Cal.4th 341, 368.) By allowing economic or the catchall "other" benefits to possibly override an impact, the Legislature clearly delegated to agencies a crucial yet flexible policy function.

Additionally, this is a rare situation in which a project's benefits will encompass multiple factors envisioned by the Legislature. (Pub. Resources Code § 21081, subd. (b).) The project will create thousands of construction jobs and dozens of permanent jobs. (Exhibit 403, Supplement to the RSA, C.8-8, Table 4, and C.8-11, Table 5.) By proving industrial-scale renewable energy that will help California meet ambitious deadlines for cutting greenhouse gases, the project will cause a host of legal and social benefits. (Exhibit 437). Solar technology is more likely to advance and to improve efficiency, with the ability to "compare the characteristics of the various solar technologies. (*Id.* at p. 2.) Finally, the "other" benefits facilitated by the project include less air pollution, fewer greenhouse gas impacts, and reliability of electricity supply during hot summer months.

III. RESPONSE TO CENTER FOR BIOLOGICAL DIVERSITY (LORS)

A. <u>The Project is Consistent with All Laws, Ordinances, Regulations, and Standards</u> (LORS)

Staff evaluates compliance with every single LORS, in every single discipline, for every single proposed project as set out in that project's AFC, and must find compliance with each LORS or find ways that compliance will be accomplished For example, Biological Resources Table 1 (RSA, C.2-7), Section C.2.4.1 (C.2-41 and 42), and Section C.2.4.2 (pages C.2-89 and 90) discussed the LORS that apply to and protect golden eagle including recent revisions to the Bald and Golden Eagle Act and USFWS management and survey protocol for this species.

Staff has explained above why it has amply fulfilled CEQA requirements. The project must also comply with NEPA and all other applicable federal requirements. While Staff's direct association with BLM changed after publication of the initial Staff Assessment/Draft Environmental Impact Statement, Staff's *analysis* and *coordination* in regards to federal impacts did not. For example, Staff extensively analyzed alternatives, as required by NEPA; for another, Staff extensively analyzed land use impacts on BLM land; for a last, Staff continued to work extensively with BLM biologists on a variety of impacts to species, such as the desert tortoise, along with developing the best possible mitigation.

B. Overrides Not Necessary for LORS

With full LORS compliance, it is not necessary for the Commission to engage in such an override.

CONCLUSION

As this is Staff's fourth brief on Genesis, the Committee is fully informed of Staff positions on all these matters, particularly Biological Resources, Soil and Water Resources, and Alternatives. Staff recommends licensing of this project not only because it would help fulfill important environmental, energy, and economic goals of the state, but because as finally proposed, the project will impose a minimum of environmental impacts on the desert.

Date: August 11, 2010

Respectfully submitted,

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ROBIN M. MAYER Staff Counsel California Energy Commission



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

APPLICATION FOR CERTIFICATION FOR THE **GENESIS SOLAR ENERGY PROJECT**

Docket No. 09-AFC-8

PROOF OF SERVICE

(Revised 8/25/10)

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DECLARATION OF SERVICE

I, <u>Rhea A. Moyer</u>, declare that on <u>August 11, 2010</u>, I served and filed copies of the attached <u>Staff's Reply Brief to</u> <u>CURE's Third Opening Brief, and Center for Biological Diversity's Opening Brief Addressing Issues Raised</u> <u>at the July 21, 2010 Evidentiary Hearing</u> dated <u>August 11, 2010</u>. 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://ww.energy.ca.gov/sitingcases/genesis_solar].

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:

X sent electronically to all email addresses on the Proof of Service list;

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CALIFORNIA ENERGY COMMISSION Attn: Docket No. <u>09-AFC-8</u> 1516 Ninth Street, MS-4 Sacramento, CA 95814-5512 <u>docket@energy.state.ca.us</u>

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.

/s/ Rhea Moyer