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STATE OF CALIFORNIA

Energy Resources Conservation and Development Commission

In the Matter of:

APPLICATION FOR CERTIFICATION FOR THE PALEN SOLAR POWER PROJECT DOCKET NO. 09-AFC-7C

REPLY BRIEF OF INTERVENOR CENTER FOR BIOLOGICAL DIVERSITY AFTER REOPENED HEARINGS

August 29, 2014

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INTRODUCTION

The Center for Biological Diversity timely files this Reply Brief and incorporates by reference herein all of the Center's earlier briefing, exhibits and other submissions in this matter. The Committee should continue to recommend denial of the proposed amendment because the Commission cannot find that the amendment will comply with all LORS and because there are feasible alternatives that would avoid and/or significantly minimize the impacts of the project. In addition, while the impacts of the proposed amended project—two 750 foot power towers with heliostats covering nearly 4000 acres—would clearly be significant for avian species (including CESA and ESA listed species and fully protected species) and Staff acknowledges these impacts are unmitigable, many of the alleged "benefits" of the proposed amended project are entirely speculative at this time or could be fulfilled by alternative projects with far less impact to environmental resources. As a result, the Commission cannot find that on balance the impacts of the proposed amended project are outweighed by the benefits.

The environmental review for the amendment has not met the most basic requirements of CEQA particularly with regard to identification and analysis of impacts to avian species. Nonetheless, even the inadequate environmental review provided to date is more than sufficient to show that, pursuant to CEQA and the Warren-Alquist Act, the Commission cannot fairly make override findings and should not approve the proposed project amendment. In addition, approval of the proposed amendment would violate other laws, ordinances, regulations, and statutes (LORS); and on this basis as well the proposed amendment must be denied.

Furthermore, because the Commission has chosen to act in lieu of the Department of Fish and Wildlife in ensuring compliance with the California Endangered Species Act ("CESA") and other Fish and Game Code requirements (the fully protected species act), the Commission must make specific findings that any impacts to CESA listed species are fully mitigated. However, this is impossible as Staff has not even attempted to estimate the impacts to avian species protected under CESA that may be killed or injured (including but not limited to willow flycatchers, Yuma clapper rail, and other migratory birds), or to provide any detailed avoidance, minimization or mitigation measures for those CESA protected species. As a result, the Commission cannot possibly make a finding that the impacts to CESA listed species will be fully mitigated and certainly cannot adopt a mitigation measure

requiring solely a one-time lump sum payment of \$1.8 million to cover impacts to *all* impacts for the life of the project to all avian species (including other migratory and resident birds not only those listed under CESA) as proposed by the petitioner. Indeed, no rational explanation has been provided of how this number was derived or to show how it will cover costs of mitigation for CESA listed species alone in addition to birds protected under other laws (e.g., MBTA, ESA, fully protected species act) for the life of the project.

The Commission, in order to fulfill its trust responsibilities as it acts in lieu of the Department of Fish and Wildlife and its charge under the Warren-Alquist Act, needs to ensure that it can learn the lessons being taught by the data emerging from existing power tower projects before approving any project of similar design such as the proposed amended project here. The Center again urges the Commission to delay and decision on this proposed amendment until more can be learned before any additional projects of similar design are approved. The Center previously suggested the Commission delay this decision on the amendment until at least one full year of operational data has been collected (including monitoring data for avian species and invertebrates; with appropriate searcher efficiency trials and scavenging information) at the existing power tower projects in California. This would also benefit the Commission because additional information would be available about efforts to avoid, minimize and reduce impacts to avian species with deterrent strategies after they are implemented and evaluated—efforts that are now entirely speculative. Given that the Palen project site is in a known migratory corridor near major bird habitats and stopover sites (including the Colorado River and the Salton Sea) caution is warranted to protect public trust resources.

Because there are feasible alternatives to the proposed amendment, including, but not limited to, the original project as approved, solar PV technology at this site, and other project layouts at this site that could substantially avoid many of the significant impacts of the amendment (including impacts to avian species, rare sand dune habitats, Mojave fringe-toed lizard, and to other resources), the proposed amendment must be denied in order to comply with the most fundamental substantive requirements of the California Environmental Quality Act ("CEQA"). (Public Resources Code §§ 21002, 21002.1(b).)

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RESPONSE TO STAFF OPENING BRIEF

I. Avian Impacts Have Not Been Fully Identified and Analyzed, Avoided, Minimized and Mitigated.

A. Impacts to CESA Protected Avian Species.

1. Staff failed to analyze impacts to CESA Protected Species which must be fully mitigated for an ITP to issue in Lieu. CESA broadly prohibits the "take" of species designated as endangered, threatened, or candidate species. (Fish & Game Code §§ 2080.) "Take" is defined to prohibit killing, or attempting to kill, such endangered, threatened or candidate species. (Fish & Game Code § 86.) Under limited circumstances, the Department of Fish and Game may authorize take of species by issuance of an "incidental take permit." (Fish & Game Code §2081(b).) To do so, all of the following conditions must be met:

(1) The take is incidental to an otherwise lawful activity.

(2) The impacts of the authorized take *shall be minimized and fully mitigated*. The measures required to meet this obligation shall be roughly proportional in extent to the impact of the authorized taking on the species. Where various measures are available to meet this obligation, the measures required shall maintain the applicant's objectives to the greatest extent possible. All required measures shall be capable of successful implementation. For purposes of this section only, impacts of taking include all impacts on the species that result from any act that would cause the proposed taking.

(3) The permit is consistent with any regulations adopted pursuant to Sections 2112 and 2114.

(4) The applicant shall ensure adequate funding to implement the measures required by paragraph (2), and for monitoring compliance with, and effectiveness of, those measures.

(Fish & Game Code § 2081(b) [emphasis added].) "Fully mitigate" is construed so as to remedy the evils of "extinction as a consequence of man's activities" and of "destruction of habitat" expressly recognized by the Legislature. (Fish & Game Code § 2051.) In addition, the Department must make a determination based on that the issuance of the permit will not "jeopardize the continued existence of the species." (Fish & Game Code § 2081(c).) "The department shall make this determination based on the best scientific and other information that is reasonably available, and shall include consideration of the species' capability to survive and reproduce, and any adverse impacts of the taking on those abilities in light of (1) known population trends; (2) known threats to the species; and (3) reasonably

foreseeable impacts on the species from other related projects and activities." (*Id.*) [TN #: 201336 (Center Opening Br. 11/26/2013 at 7-8].

Staff's brief does not directly address the CESA standard that needs to be met in order for the Commission to approve the proposed amendment. As the Center has shown in earlier briefing, the Commission cannot make the needed findings and therefore cannot approve the amendment acting in lieu of the Department of Fish and Wildlife; to do so would violate the law.

Instead, Staff addressees only CEQA issues in its discussion of the likely impacts to avian species. While the Center largely agrees with much of the discussion by staff regarding the significance and uncertainty regarding the full scope of avian impacts, rather than analyze what is known, staff appears to throw up their hands and abdicate responsibility by making sweeping statements about uncertainty that would apply to *any* project. For example: "But the specific impacts of the PSEGS project could never be known with certainty until this specific project in this specific location is operational." (TN #: 202934 at 6, Staff Opening Br.) This is a tautology. Staff then goes further and attempts to justify the lack of analysis of mitigation measures based on the same uncertainty. "No amount of data from other projects will provide Staff with any more certainty about the impacts we would see at PSEGS and whether this suite of mitigation will mitigate those impacts to less than significant." (*Id.*) This is unsupported and unsupportable, if nothing could be learned from experiences with other projects and actions then there would be no point in undertaking CEQA review at all (indeed no point in ever utilizing the scientific method!).

The truth is that there is much to be learned from even the scant amount of data now available from the McCrary study and from the currently operating power tower project and the Staff can and should look at how that information can be used to inform the environmental review here. Most importantly, the Palen project site is in an area that appears to be far more sensitive for avian species than the currently operating power tower project including, but not limited to: its location in an active migratory bird corridor; proximity to several world-class important bird areas (including wildlife refuges along the Colorado River and the shores of the Salton Sea); and documented presence of CESA protected species at nearby water features (Exhs. 3001 at 9-15 (Anderson testimony; birds likely

to be affected), 3019 (E-bird data from Lake Tamarisk near project site), 3017, 3018, 3020, 3021, 3022, 3023, 3024, 3025, 3026, 3027, 3028, 3029 (detailed information on various bird species likely to be affected)_, 3126 (Anderson: additional data available on migratory pathways shows high use in the project area and noting attraction of birds could increase impacts significantly), 3037 (Flanagan testimony on birds in area), 3038 (birds banded at Salton Sea), 3039 (PRBO report on bird breeding areas within California desert), 3127 (Flanagan: methods for estimating migratory impacts.); *see also* TN #: 202975 (August 2014 sightings of CESA protected willow flycatchers near the Palen project site). Because Staff has not even provided the identification and analysis required by CEQA for likely impacts to all avian species it has also failed to fully analyze the impacts to CESA protected avian species including willow flycatchers.¹

2. Without Analysis and Mortality Estimates Staff Cannot Claim Impacts to CESA Protected Species are Fully Mitigated as Required. Impacts to CESA protected species must be fully mitigated but Staff's position appears to be that it just does not know what those impacts will be and therefore the Commission can simply ignore this critical issue—it cannot. There is no showing by Staff (or the petitioner) that the measures generally outlined in BIO-16 or Staffs proposal to focus mitigation on special status species experiencing population level declines (which is not the standard for the need for mitigation and as the Center explained in our Opening Brief cannot likely be determined from the proposed monitoring requirements) and the funding at \$1.8 million are together sufficient to fully mitigate for impacts to CESA listed species, and certainly has not shown they are sufficient to mitigate for impacts to all avian species.² Simple logic dictates that if the impacts to CESA listed birds are as yet unknown, whether those impacts can be mitigated, the amount of mitigation needed, and the cost of mitigation also remain unknown.

CESA does not provide any mechanism to "override" the need to fully mitigate impacts to

¹ In addition, the potential impacts to fully protected species that utilize the Palen area including Yuma clapper rail and golden eagle should have been fully evaluated but were not—and "take" of these species is prohibited without an NCCP in place.

² Similar issues are raised by the U.S. Fish & Wildlife Service in its recent comments on Staff's proposed changes to BIO-16b (TN#:202987). While not commenting on the amount of funds available, FWS noted that "population level impacts are difficult to define or identify, even for well-studied species with good data available (*id.* at 1), and that if mitigation funds were limited to special status species experiencing population level declines, "[u]nder the revised measure non-special status species would not receive any mitigation." (*Id.* at 2.)

protected species. Impacts to CESA listed species must be fully analyzed and fully mitigated or the proposal should be denied. In this instance where staff have not even attempted to quantify the impacts to CESA listed birds (including willow flycatchers) and has not shown impacts will be fully mitigated, the petition must be denied.

In addition, Staff has not adequately addressed the question of potential attraction of avian species, including CESA protected species, to the project site either due to large numbers of insects or the "lake effect". This issue was raised by US FWS regarding the potential creation of a "mega-trap". (Exh. 3107 at 2 [Kagan et al. 2014].) Ms. Anderson also discussed concerns that attraction of birds due to both the presence of large numbers of insects and the "lake effect" could significantly increase impacts to avian species in written testimony (Exh. 3126), and stated in unrebutted testimony at hearing:

I'm also concerned about the project actually attracting birds to the site and putting them into harm's way. I see two ways that this could occur. First, the birds could be attracted to the site by mirrors mimicking water features, the famous lake effect that I know we've talked about and, therefore, being killed or injured by collision, as reported in the literature.

And secondly, birds being attracted to the flying insects that are being attracted to the super bright light of the concentrated solar and, therefore, being killed or injured by being burned. Also, that's been reported in recent literature. Both of these would be deadly attractions created by the project.

TR 7/30/14 at 307-308.

Because Staff has not provided the CEQA identification and analysis required and has failed to fully analyze the impacts to CESA protected species or show that impacts would be fully mitigated, the Commission cannot lawfully approve the proposed amendment.

B. Staff Fails to Address The Commission's Public Trust Obligation to Protect Avian Species Or The Requirements of the Fully Protected Species Act.

Staff did not provide any explanation on how the Commission could meet its obligations to protect public trust in wildlife or fully protected species if it acts in lieu of the Department of Fish and Wildlife in this matter.

Pursuant to statute (as well as common law) the waters and wildlife resources of the State of California are held in trust for the people of the State. Cal. Fish & Game Code §711.7(a); see also Fish

& Game Code § 1801 (it is "the policy of the state to encourage the preservation, conservation, and maintenance of wildlife resources under the jurisdiction and influence of the state"). The public trust doctrine "places on the state the responsibility to enforce the trust." (*Center for Biological Diversity, et al., v. FPL Group, Inc.* (2008) 166 Cal App. 4th 1349, 1368, 1361 ["[I]t is clear that the public trust doctrine encompasses the protection of undomesticated birds and wildlife. They are natural resources of inestimable value to the community as a whole. Their protection and preservation is a public interest."].) The Supreme Court has identified this substantive duty "to protect the people's common heritage," holding that an agency may surrender "that right of protection only in rare cases when the abandonment of that right is consistent with the purposes of the trust." (*Nat'l Audubon Soc'y v. Superior Court* (1983) 33 Cal.3d 419, 441.)

As a result the Department, or the Commission if properly acting in its place, must fulfill its trust duties in considering the amendment, including maintaining healthy populations of wildlife species and habitats, providing for the beneficial use and enjoyment of wildlife by all citizens of the State, and perpetuation of wildlife species for their intrinsic and ecological values. To the extent the Commission's decision on this amendment may affect public trust resources it must uphold the trust and protect public trust resources. In this capacity, the Commission must act as a trustee for the people of California. Further, the Commission's consideration of impacts to trust resources must be informed by the Department of Fish and Wildlife which is the trustee for fish and wildlife resources. (California Fish and Game Code § 1802.) The Center briefed this issue and the fully protected species issue alonge with LORS for MBTA and BGEPA in detail in our 2013 Opening Brief (TN #: 201336 at 6-7, 9-12), but the issue has been largely ignored by the Commission. The earlier 2013 PMPD regarding this amendment (TN #: 201434), does not even mention the public trust in wildlife that must be protected.

C. Seasonal Curtailment Should be Included in Conditions of Certification to Minimize Impacts.

As explained in the Center's opening brief, even though CEQA provides that in some circumstances the lead agency can override the need to choose an alternative that avoids significant impacts when those impacts cannot be mitigated to below a level of significance, those impacts must still be avoided, minimized and mitigated to the extent possible because CEQA requires that all feasible mitigation measures be adopted, even if significant impacts ultimately remain: "each public agency shall mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so." (Pub. Res. Code § 21002.1(b).) Indeed, as explained in the Center's opening brief for these reopened hearings, mitigation of a project's significant impacts is one of the "most important" functions of CEQA. *Sierra Club v. Gilroy City Council* (1990) 222 Cal. App. 3d 30, 41. A mere finding that impacts are significant and unavoidable is no substitute for meaningful analysis of impacts or incorporation of feasible mitigation measures or alternatives. *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1370-71, (an agency can't "travel the legally impermissible easy road to CEQA compliance . . . [by] simply labeling the effect 'significant' without accompanying analysis.")

For the Palen project, seasonal curtailment based on migratory pulses could likely avoid, minimize, and mitigate some of the avian impacts and therefore must be adopted by the Commission. Seasonal curtailment was recommended by the U.S. Fish & Wildlife Service (Exh. 3107 at 2 [Kagan et al. 2014; "Suspend power tower operation during peak migration times for indicated species".) (*Id.* at 2 ; *see also* TN #: 203008at iv (on spring report from the currently operating power tower project notes that the times when more dead birds were found "coincided with increases related to pulses in migration".) Dr. Smallwood notes that curtailment may be a potentially effective measure to avoid some bird deaths particularly during migratory periods but again emphasizes the need for good monitoring protocols and reporting to assess effectiveness. (Exhs. 3140 at 15-16 (Smallwood discussing potential value of curtailment).³

D. Potential Changes to Flux Field From Heliostat Positioning to Minimize Glint and Glare Have Not Been Evaluated For Potential Impacts to Avian Species

Staff at hearing suggested various measures be included in a condition TRANS-7 (TN #: 202877) that would include future development of a heliostat positioning plan that may alleviate some of the concerns with glint and glare. The petitioner submitted minor changes to the plan after the hearings. The measures include

 $^{^{3}}$ As explained in our opening brief, seasonal curtailment is supported by the Center to protect some avian species although the number of birds that could be saved remains uncertain as it is unclear how many birds are killed by flux vs. collision. (*see, e.g.*, TR7/30/14 at 363 (staff theory that many collision deaths may actually be flux related); Exh. 3140 at 15-16 (proportionate estimate).

"changing the geometry of the standby ring to disperse reflections, improving calibration and positioning algorithms of the heliostats, providing a "light dump" or receiver for heliostat standby reflections"

(TN#:202928; Petitioner's Proposed Modifications to Trans-7). However, Staff has not provided any evaluation of whether or how such measures might increase impacts to other resources. For example, could "changing the geometry of the standby ring" potentially increase the size of the high-flux area which is deadly to birds and invertebrates? Could adding a new "light dump" or receiver for standby reflections increase the size of the flux field? If so, by how much could the field be expanded to reduce glint and glare? How would these trade-offs between pilot safety and bird deaths be evaluated? Would the Commission be asked to make these critical choices or would it be solely up to compliance staff at the CEC? These and other questions need to be answered <u>and</u> the likely impacts to environmental resources evaluated before the proposed condition can be adopted by the Commission.

Because the potentially significant impacts of the mitigation measure on other resources have not been evaluated, the requirements of CEQA have not been met.⁴

II. Deferring Conservation Plans is Unlawful and Conditions Are Not Fully Enforced

A. All Conservation Plans Must be Finalized and Provided to the Public Before the Decision is Made; All Required Plan and Reports Must Be Filed on a Set Schedule and Provided to the Public Key; Biological Conditions Should Not Be Able to Be Changed By Compliance Staff Alone

Even if the Commission could lawfully approve the proposed amendment, which the Center does not concede, the conditions of certification are far too vague and inappropriately allow development and adoption of key conservation plans to be deferred indefinitely and outside of the public review process. The Center has previously briefed (TN #: 202935), the question of inappropriately deferring key plans related to mitigation⁵ and the inappropriate use of an unlawfully

⁴ The Center also questions whether the condition is sufficient provide true performance standards which would allow the Commission to defer development of detailed mitigation measures, but that appears to be a somewhat moot point given that the even more fundamental CEQA requirement, that the impacts be evaluated, has not been met.

⁵As explained in the Center's Opening Brief on these reopened hearings TN #: 202935 at 23-26; Exh. 3001 (Anderson testimony on lack of final or even draft plans); TR7/30/14 at 308 (Anderson testimony on concerns with deferring plan development until well after the public process).

formulated TAC⁶ to make decisions that should be made by the Commission after full public review.

In addition, it has come to the Center's attention that key conservation plans have not been finalized by the deadlines in the Conditions of Certification for some projects and/or the final plans have not been provided to the public. The Commission should tighten up the COCs to ensure that unacceptable delays in adopting final plans and carrying out needed monitoring and reporting do not occur in the future. There should also be set dates for posting all reports and plans to the docket.

For example,

• The Genesis solar project began operations in early 2014, the COC BIO-16 states a final Avian Protection Plan was required to be submitted before construction began but is still not available on the docket—either it was never developed and finalize or it has inappropriately been withheld from the public, either situation is unacceptable.

"BIO-16 The Project owner shall prepare and implement an Avian Protection Plan to monitor the death and injury of birds from collisions with facility features such as transmission lines, reflective mirror-like surfaces and from heat, and bright light from concentrating sunlight. The Project owner shall use the monitoring data to inform and develop an adaptive management program that would avoid and minimize Project-related avian impacts. Project-related bird deaths or injuries shall be reported to the CPM, CDFG, and USFWS. The CPM, in consultation with CDFG and USFWS, shall determine if the Project-related bird deaths or injuries warrant implementation of adaptive management measures contained in the Avian Protection Plan. The study design for the Avian Protection Plan shall be approved by the CPM in consultation with CDFG and USFWS, and, once approved, shall be incorporated into the project's BRMIMP and implemented.

Verification: No less than 30 days prior to the start of construction-related ground disturbance activities the Project owner shall submit to the CPM, USFWS and CDFG a final Avian Protection Plan. Modifications to the Avian Protection Plan shall be made only after approval from the CPM."

(Genesis Decision at pdf 328). However, as yet no final ABPP has been docketed and monthly monitoring reports for construction activities appear to only be based on incidental observations; to date no survey results for the required operational avian monitoring have been docketed.

Without set deadlines for filing final plans and docketing operational monitoring

⁶ As explained in the Center's Opening Brief on these reopened hearings TN #: 202935 at 6-7, 26, if a TAC is used it must comply with the Bagley-Keene Open Meeting Act. Because the COCs do not require full compliance with the law, the TAC is unlawfully formulated.

information it is impossible for the Center (a party/intervenor in that proceeding) or the public to know whether or not this key conservation plan has been developed and finalized and whether or not appropriate monitoring has been undertaken. Without a date certain timeline for a final plan, potentially years of operation could occur without appropriate monitoring and reporting occurring.

• The Abengoa Mojave Solar Project which was approved earlier, the COCs required:

"Monitoring Impacts of Solar Collection Technology on Birds

BIO-17 The project owner shall prepare and implement a Bird Monitoring Study to monitor the death and injury of birds from collisions with facility features such as reflective mirror-like surfaces and from heat, and bright light from concentrating sunlight. The study design shall be approved by the CPM in consultation with CDFG and USFWS, and shall be incorporated into the project's BRMIMP and implemented. The Bird Monitoring Study shall include detailed specifications on data and carcass collection protocol and a rationale justifying the proposed schedule of carcass searches. The study shall also include seasonal trials to assess bias from carcass removal by scavengers as well as searcher bias.

Verification: At least 60 days prior to any construction-related ground disturbance, the project owner shall submit to the CPM, USFWS, and CDFG a draft Bird Monitoring Study. The CPM shall review and provide written comments within 15 days of receipt of the Bird Monitoring Study. At least 30 days prior to start of any construction-related ground disturbance activities, the project owner shall provide the CPM with the final version of the Bird Monitoring Plan that has been reviewed and approved by the CPM, in consultation with CDFG and USFWS. All modifications to the Bird Monitoring Study shall be made only after approval from the CPM.

(Mojave Solar Decision at 300-301). The Center has been unable to confirm whether or not this condition has been complied with regarding the final Bird Monitoring Plan although construction has begun. Most disturbingly, the Center has been informed that the company has suggested undertaking operational mortality monitoring using their on-site workers, not biologists. Such a change would substantially undermine the efficacy of the condition and should not be make without an amendment process and full public and Commission review.

Overall, it is unclear whether the Commission is properly overseeing the implementation of all biological conditions of certification regarding biological resources for existing projects such that the conditions are fully complied with. As a result, Conditions should require full transparency for the public, and consequences for failure to meet conditions in the form of fines that are tiered to increase with time if delays continue (those funds could then be used to provide additional mitigation for biological resources for example).

In addition, any requests to change the deadlines for conservation plans or any aspect of biological conditions including monitoring conditions should be treated as significant changes in the conditions of certification because they could undermine the validity of monitoring results and the expected conservation value. The Commission should clarify that *any changes to biological conditions of certification including requests to delay submission of any conservation plans cannot be made by compliance staff alone but must be submitted to the Commission as amendments and undergo a <i>public review process*.

The Center requests that the Commission add a prohibition on changing or delaying and of the requirements in the biological conditions of certification without an amendment being submitted to the Commission.

B. The Commission Should Prohibit the Use of Overly-Broad Non-Disclosure Agreements By Permittees.

The Center is aware that at some project sites workers and biologists have been required to sign non-disclosure agreements which have broad prohibitions on disclosure of impacts to wildlife and other biological resources and specifically prohibit providing information directly to public agencies. In other instances project owners have claimed that such data and information is "proprietary" or "confidential." This is entirely unacceptable. Wildlife resources are public trust resources, held in trust for the people of the State of California. The public has a right to know the truth about impacts to these resources and the Commission has an obligation to ensure that any impacts are reported and steps are taken to avoid, minimize and mitigate those impacts for all resources. In addition, without accurate reporting the Commission cannot fulfill its duty under CESA to ensure all impacts to CESA protected species are fully mitigated.

The Center requests that the Commission add a prohibition on the use of any non-disclosure

agreements and prohibit any claim that any biological data and information (required to be collected under the biological conditions of certification or incidentally obtained) is "proprietary" or "confidential" at a permitted project.

III. Alternatives are Feasible and Therefore Staff's Change in Position from Denial To Neutral is Irrational.

Staff has found that there are feasible alternatives to the proposed amendment; therefore, an override is not lawful.

Moreover, the reasons provided for the change in recommendation from denial to neutral appear nonsensical. Staff states "with the revised phasing approach and the adoption of Staff's recommended conditions of certification for biological and cultural resources, Staff no longer has a recommendation on whether the Commission should adopt a statement of overriding considerations." (Staff Opening Br. TN#:202934 at 7.) First, the phasing plan does nothing to change either the impacts of the proposal – which still seeks approval for two 750-foot power towers—or the likelihood that storage will be built in the future (as explained in detail in the Center's opening brief (TN #: 202935). As Ms. Anderson noted in unrebutted testimony at hearing:

It's also my opinion that the single tower would not halve, as in h-a-l-v-e, halve the impacts to the biological resources. Instead, I think it would be something like a more **non**-linear relationship. And I'm sure we're going to talk about this more in Biology, but I wanted to mention this now, in alternatives. In other words, halving the project size would not reduce the impacts by half.

(TR 7/30/14 at 100 [correction in bold].)

Second, the conditions of certification for biological resources have not changed substantively since the PMPD was issued and, to the extent that they have changed at all, they are even more vague and unenforceable deferring even more of the development of key mitigation and minimization strategies to a later time outside of the CEQA process with no deadlines. As a result, the Staff can point to no rational basis for its change in recommendation. Staff's change in position is not based on factual evidence in the record and should be rejected. More importantly, the Commission cannot find that any substantive evidence shows that the situation is any different from that at the time the PMPD was issued.

RESPONSE TO PETITIONER'S OPENING BRIEF

I. The Center's Estimates of Avian Deaths are Reasonable Given the Limited Information Available

Petitioner's attempts to rebut Dr. Smallwood's estimates of potential avian deaths from the Palen project are unavailing. Dr. Smallwood's estimates that the number of dead birds per year could be between 3,573 and 18,000 at the Palen project are reasonable based on the admittedly very limited data available and clearly include *both* deaths from solar flux and collision⁷. This estimate was based on the fatality rates estimated after a year of monitoring at the Solar One project, and was checked for reasonableness against the fatality rates estimated from the first two months of scientific monitoring at the currently operating power tower project. Dr. Smallwood did not make any separate estimates based on the source of mortality at either Solar One or currently operating power tower project, or extended to Palen. To put it in the simplest terms, *the number of birds found in monitoring is not the same as the number of birds killed*—each bird found represents many other birds and much of Dr. Smallwood's testimony explains those factors that need to be looked at in order to estimate how many more birds each bird found represents.

Each bird found represents many other birds not found for at least 3 reasons:

- 1) the whole site is *not* searched;
- searcher detection error only a portion of the birds and bats available to be found within the search area are actually found, and this portion decreases with body size;
- 3) carcass scavenging rates take into account the portion of fatalities that are removed by scavengers before searchers were able to detect the fatalities, and these rates depend heavily on the time intervals between periodic searches (which can be 3-9 days or even 2 weeks in some cases, and which is also generally higher for smaller birds).

 $^{^{7}}$ In addition, Staff has testified that they believe many birds that appear to have died from "collision" with mirrors should properly be considered to have been killed by solar flux—as a result, a combined mortality figure is more in keeping with what is currently known regarding avian deaths at the existing project site. TR 7/30/14 at 276 ["probably flux-related mortality causation even in non-singed birds. Staff now believes that feather singeing, in and of itself, is not a separate or distinct mechanism of caused mortality but is, instead, just a more severe form of heat-induced impairment, which happens to be easily identifiable through visual means. This means that the key survival issue for birds is thermal regulation of their physiology when in a flux field."].)

4) monthly figures must be converted to yearly figures.

We review each of these factors in turn below.

1. Percent of the Site Searched. Dr. Smallwood utilized a figure of 20% for the percent of the currently operating power tower project site that was searched (Exh. 3140 at 7) as stated in the documents filed with the CEC that "20% of the field was searched" in making an estimate for the currently operating power tower project. Although Petitioner has argued this was the wrong percentage⁸, adjusting for this factor at currently operating power tower project would have no effect on his estimates for Palen and therefore is immaterial to this proceeding.

2. & 3. Searcher Detection Error and Scavenging Rates. In order to evaluate the data from the currently operating power tower project, where searcher detection error trials and scavenger removal rate estimates have *not* yet been completed at the time of the hearings and now only some seasonal trials have been reported,⁹ Dr. Smallwood used national average rates for both of these factors from other published literature on monitoring (Exhs. 3131 (Smallwood 2007), Exh. 3134 (Smallwood et al. 2013)), which is perfectly reasonable and scientifically defensible. As Dr. Smallwood explained he used

national averages to represent scavenger removal rates and searcher detection rates (see Smallwood 2007, 2013) Based on the methods in Smallwood (2007), I have since reviewed more than 400 searcher detection trials and more than 400 scavenger removal trials across North America (Smallwood 2013).

Exh. 3140 at 4.

Dr. Smallwood clearly stated that he used a 20% combined factor for searcher error and

⁸ At hearing, petitioner claimed at hearing that 100% of the tower area was searched plus 20% of the heliostat field and claimed that a 25% factor should be used instead. ⁸ On August 27, 2014 a new report was provided to the public regarding the currently operating power tower project which states that the percentage searched was approximately 29%, it was filed in this proceeding n August 29, 2014 by the petitioner. (TN #: 203008 [07-AFC-05C, TN #: 202990].) Adjusting for this factor would change Dr. Smallwood's estimates for the currently operating project (using 29% instead of 20%) *but, again, would have no effect on his estimates for Palen*.

⁹ The new report also includes single season spring searcher efficiency and scavenging trial information. (**TN #:** 203008.) Dr. Smallwood has not yet had time to fully review this new material, but has raised concerns regarding over-reliance on searcher efficiency rates for one season only with very small sample size (which appear to show efficiency much higher than the national averages), a full year of such trials need to be conducted before those rates can be established. In addition, Dr. Smallwood noted the use of varying search intervals (which can confuse results), the use of mean values for carcass persistence (which can skew results), the use of only 2 categories (large and small birds) and the use of "small" birds and at the large end of the spectrum in trials (which can bias results to assume higher searcher efficiency for small birds), and inadequate trials in the power block area. Taken together these flawed methodologies can make carcass persistence seem longer and searcher efficiency appear higher.

scavenging – meaning each bird found likely represents 5 dead birds within the area searched (4 of which were missed in searches due to searcher error or prior scavenging). (Exh. 3140 at 7.) When combined with the percent of area searched (e.g. 20%) this calculation provides the estimated dead birds—thus if 20% of the project site were searched with a 20% combined searcher efficiency error and scavenging rate *each dead bird found each month would represent up to 25 dead birds*.

Just as an example, if information *from spring trials only* in the report filed August 27, 2014 were utilized in making these estimates (29% of the site searched, 61% surveyor efficiency and 62% carcass persistence rate), *each dead bird found each month would represent 8.4 other dead birds*. However, , the methodology used in the spring detection trials is questionable -- it appears to show searcher efficiency and carcass persistence much higher than the national average but is based on a single season and small sample size. The report raises a number or problems including, but not limited to, (1) very small sample size; (2) use of mean days to removal instead of proportion of carcasses remaining 7.2 days into the trial; (3) search intervals varying from 6 to 14 days; (4) use of only two body size classes (small and large), which biases the fatality rates low due to the many very small birds that were found; (5) insufficient trial in the power block areas, where scavengers are much more likely to detect and remove carcasses due to high visibility; and (6) reliance on only a single trial (spring 2014).

4. Monthly Figures Converted to Yearly Figures. In order to convert the monthly reports into an average for the year where only two months of data utilizing the same monitoring protocol were available at the currently operating power tower project, Dr. Smallwood assumed the fatality rates will remain the same as seen during the first two months of monitoring at the currently operating power tower project. This is standard practice. At Solar One, and entire year of monitoring was available.

Petitioner complains that the months used at the currently operating power tower project were likely high because of spring migration but provided no basis for this statement. As Dr. Smallwood stated at hearing, without a full year of data there is no way to know that March and April were the high months.¹⁰ If a full year of monitoring data obtained using the same protocols were available this discussion would be quite different—without that data, Petitioner's position is little more than pure speculation.

¹⁰ The recent report appears to show similar numbers in May. (**TN #:** 203008.)

II. Deterrent strategies are purely speculative and impacts have not been evaluated

A. Deterrent strategies proposed are speculative and there is no evidence they will be effective.

The petitioner asks the Commission to rely on undeveloped and untested mitigation and minimization measures – a suite of speculative deterrent strategies—in pleading that the significant impacts of the proposed amendment should not cause the Commission to deny the petition. The Center stresses once again that we are very hopeful that deterrent strategies can be developed for the existing power tower project that will avoid and minimize impacts there. However, at this time it is purely speculative to assume that they will work. As a result, the Commission cannot properly rely on possible undeveloped and untested deterrent strategies in the future in considering the significant and harm to avian species that would be caused by the proposed power towers at the Palen site. Again, because feasible alternatives exist that would have far fewer impacts to avian species including CESA protected species, fully protected species, and eagles and migratory birds protected under Federal law, the Commission must deny the petition.

B. Additional impacts from use of any deterrent strategies have not been evaluated.

Even if speculative deterrent strategies could be properly included in the COCs (which the Center does not concede), petitioner has failed to show that deterrent strategies have been adequately evaluated under CEQA. In particular none of the potential adverse impacts of these strategies on resident and migratory birds or other wildlife species have been evaluated by Staff. As a result, the Commission would be in violation of CEQA were it to adopt the COCs as recommended by petitioner.

RESPONSE TO OTHER INTERVENORS' OPENING BRIEFS

The Center agrees CRIT regarding concerns that the review of the impacts of the petition to amend was unfairly truncated to only look at the difference between the approved project and the amendment given that the petitioner now states the approved project is "infeasible" and when the petitioner has never had any intention of utilizing the earlier approval for the solar trough design.

The Center agrees with Basin and Range Watch that impacts of glint and glare have not been fully addressed and that simply deferring this issue to the TAC is inappropriate.

CONCLUSION

The petitioner bears the burden of providing sufficient substantial evidence to support each of the findings and conclusions required for certification of the proposed amendment including any evidence needed for override findings. (*See* Siting Regs. § 1748(d).) In this instance there is insufficient substantial evidence to support the required findings and conclusions in many areas. Most importantly, there is insufficient evidence to support a conclusion that all alternatives are infeasible or to support an override in any area. The impacts of the proposed amendment to build two 750-foot power tower projects at the Palen site to avian species alone are significant—this site is in close proximity to the Colorado River and Salton Sea which are both key migratory stopovers in the Pacific flyway attracting both rare and common migratory birds to the area. The proposed amendment also fails to avoid rare sand communities and habitat for the Mojave fringe-toed lizard although it is clearly feasible to do so. Because feasible alternatives exist and the benefits for the project are purely speculative while the impacts to wildlife are well documented and all too real, the Commission cannot certify the project amendment or adopt any overrides.

In light of the above, the testimony, exhibits and public comment submitted in this matter, the Center urges the Commission to deny the amendment application.

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Respectfully submitted,

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