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**STATE OF CALIFORNIA  
ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION**

**In the Matter of:**

**Application for Certification for the**

**PALEN SOLAR ELECTRIC GENERATING  
SYSTEM**

**Docket No. 09-AFC-07C**

**ENERGY COMMISSION STAFF REPLY BRIEF  
(REOPENED EVIDENTIARY RECORD)**

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**ENERGY COMMISSION STAFF REPLY BRIEF**  
**(REOPENED EVIDENTIARY RECORD)**

**I. Introduction**

Energy Commission Staff (Staff) believes that many of the issues raised by other parties in their opening briefs have been adequately addressed in Staff's Opening Brief related to the reopened evidentiary record (TN 202934) as well as previous briefs provided at the close of the evidentiary hearings conducted in October 2013 (TN 201338 and TN 201355). Issues warranting further response are addressed below.

**II. Staff Used the Proper Baseline to Analyze PSEGS Impacts**

CRIT argues that Staff's use of the previously approved Palen Solar Power Project (PSPP) permit as the environmental baseline for analyzing impacts from the proposed Palen Solar Electric Generating System (PSEGS) violates CEQA. (CRIT Opening Brief, pp. 17 to 20.) For this assertion they rely solely on *Neighbors for Smart Rail v. Exposition Metro Line Const. Authority* (2013) 57 Cal.4<sup>th</sup> 439, a case that bears little resemblance to the facts of this proceeding. *Neighbors* did not involve a proposal to modify an existing permit. It involved the use of a baseline several decades in the future without any evidence that an analysis based on the existing baseline would tend to be misleading or without informational value to readers of the environmental document. The court did not address, because it was never presented with, a situation where the agency was analyzing impacts resulting from the modification of an existing permit, which is the situation currently at issue. Staff's analysis is not based on a projected or hypothetical baseline. Staff's baseline for evaluation of impacts resulting from the proposed PSEGS modification is based precisely on the original PSPP permit.

This is directly in keeping with the court's holding in *Fletcher Benton v. Board of Supervisors of Napa County* (1991) 226 Cal.App.3d 1467, which involved a proposal to relocate a winery for which a permit for the original location had already been granted. The court held that the proposal was a modification to an existing project because the company had already obtained final CEQA approval and its right to build the original winery had vested by the time the board of supervisors acted on the request for modification. (See also, *Fund for Environmental Defense v. County of Orange* (1998) 204 Cal.App.3d 1538, 1542-1548 [holding that a modification for a proposed project whose original permit had expired could be considered a modification and did not require it to be treated as a new project].) The court also held that the county properly considered only the incremental differences between the original project and the modification when evaluating whether the modifications to the original proposal would result in any significant environmental impacts. (*Benton* at p. 1484.) This approach is supported even where no construction has commenced on the original permit. (See, Remy, Thomas, p. 199 ["[W]here the question before an agency is whether to prepare a subsequent or supplemental EIR to account for changes to a previously-approved

project, the baseline should include the project as originally approved, even if it has not yet been built.”].)

As CRIT acknowledges, the Commission has always treated PSEGS as a modification to the existing PSPP permit. (CRIT Opening Brief, p. 18.) Nevertheless, CRIT argues that the holding in *Neighbors for Smart Rail* is applicable because the PSEGS applicant has made several statements that it does not consider the PSPP project feasible because they do not currently have access to the technology analyzed in that permit and instead wish only to build utilizing the power tower technology that it developed. Regardless of the applicant’s assertions, the PSPP permit is a valid permit which has survived environmental review, and the applicant currently has the vested right to build the project. Staff could find no case holding that a project modification must be treated as a new project for purposes of CEQA if the applicant has indicated it has no intention to build the permitted project.

CRIT’s reason for arguing that the environmental analysis must include reevaluation of the original permit stems directly from a desire to comment on matters that were decided in the original proceeding, of which CRIT was not a part. (CRIT Opening Brief, p. 19.) The original PSPP permit, however, is no longer before the Commission – it is a vested permit. The only matters now before the Commission are the modifications to the existing permit proposed by PSH. This review is limited solely to the changes proposed by PSH and does not allow the Commission to *carte blanche* reopen the original proceeding. (See, *Benton*, p. 1482 [holding that petitioner’s desire to have the board reconsider impacts already approved as part of the initial CEQA review was not tenable as the original permit had already survived environmental review and the only item currently subject to board approval was modification of the original permit]; and *City of Ukiah v. County of Mendocino* (1987) 196 Cal.App.3d 47, 53-57 [rejecting petitioner’s argument that a fair argument existed that gravel extraction activities were degrading the river because such activities were not before the board for approval and property owner already had a vested right to continue such activities].)

Therefore, because the PSEGS is a modification to the vested PSPP permit, and Staff’s assessment is in substance that of a subsequent or supplemental EIR, Staff’s use of the PSPP permit as a baseline for analyzing impacts resulting from PSEGS is in full compliance with CEQA and the Commission may not revisit matters determined in the first proceeding that are not being modified by PSEGS.

### **III. Staff Has Thoroughly Analyzed the Potential Environmental Impacts of PSEGS.**

CBD continues to generally assert that the environmental review of the impacts of this Petition to Amend is incomplete and inadequate. (CBD Opening Brief, p. 4.) This is simply not true. The potential impacts of PSEGS have been analyzed by Staff based on

available information,<sup>1</sup> and extensive evidence has been presented to the Committee by other parties, including CBD.

Staff published a Preliminary Staff Assessment (PSA) and published the Final Staff Assessment (FSA) in three parts: Part A, which included an analysis of all subject matter areas except Cultural Resources and Air Quality (Exh. 2000); Part B, which included the Cultural Resources analysis (Exh. 2001); and Part C, which included the Air Quality analysis (Exh. 2013). Staff provided further analysis on specific issues requested by the Committee pursuant to PSH's Motion to Reopen the Evidentiary Record in order to address questions the Committee cited in the PMPD and other issues raised by the parties after the PMPD. (Exhs. 2017 and 2018.)

CBD also argues that additional impacts from use of any deterrent strategies have not been evaluated. (CBD Opening Brief, p. 13.) This is incorrect. Staff provided an analysis of potential impacts from the use of deterrent strategies in Staff's Supplemental Staff Assessment and Testimony and in Staff's Rebuttal Testimony.<sup>2</sup> (Exh. 2017, pp. 21 to 22; Exh. 2018, pp. 6 to 9.)

CBD further argues that the approval of the PSEGS project would violate state and federal LORS. Staff disagrees and previously addressed this issue in Staff's Opening Brief filed on November 16, 2013. (TN 201338, pp. 26 to 30.)

#### **IV. Performance Standards are Unnecessary When A Statement of Overriding Considerations is Made**

Many feasible mitigation measures related to avian species have been set forth in proposed conditions of certification. However, given the uncertainties about the specific impacts that will be seen at this specific site, Staff cannot conclude that the measures will be enough to mitigate the project's impacts to less than significant. Where mitigation measures are not enough to minimize impacts to less than significant, the Energy Commission (if it were to approve this amendment) would first need to make findings that the mitigation measures may not be feasible or are insufficient to mitigate the project's impacts to less than significant, and then would need to make a finding of overriding considerations. (See § 21081(b); *City of Marina v. Board of Trustees of the California State University* (2006) 39 Cal.4th 341, 368, "When a public agency has found that a project's significant environmental effects cannot feasibly be mitigated, the

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<sup>1</sup> CEQA Guidelines state that "[an] evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible." (CEQA Guidelines, § 15151.) "CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commentors." (CEQA Guidelines, § 15204(a).)

<sup>2</sup> CEQA Guidelines, § 15126.4(a)(1)(D) states that "If a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure shall be discussed but in less detail than the significant effects of the project as proposed."

agency may nevertheless proceed with the project if it also finds ‘that specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects on the environment.’”)

The purpose of requiring prescriptive mitigation measures, or mitigation measures containing specific performance standards, is to ensure that mitigation measures will reduce impacts to less than significant. (*Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal. App. 4th 899, 945, 146 Cal. Rptr. 3d 12, 48, “Deferred mitigation measures [with specific performance criteria] must ensure that the applicant will be required to find some way to reduce impacts to less than significant levels.”) Where a finding of infeasibility and a statement of overriding considerations is made, it is unnecessary to require that every single component of a multi-faceted mitigation approach must contain performance standards.<sup>3</sup>

Here, Staff has required many feasible mitigation measures. Through the adaptive management program, additional mitigation measures can successfully reduce impacts to some further extent, but Staff believes that only with operational data can the *most effective* mitigation approaches be developed. (Exh. 2018, pp. 16 to 17; Exh. 2017, p. 18 to 19; Exh. 2019, Attachment A, Response to Proposed Revisions to Condition of Certification BIO-16b.) And even if more concrete performance standards were adopted, Staff cannot be certain that the subsequent actions and activities will be sufficient to mitigate the impacts to less than significant.

However, the Committee has expressed an interest in, and PSH has provided in its Opening Brief, more specific outcome-based performance standards that will direct the Technical Advisory Committee (TAC) on how it should direct mitigation funds. Although Staff has made clear its concerns about developing thresholds or using thresholds to

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<sup>3</sup> In *Gray v. County of Madera*, the court found that a mitigation measure improperly deferred formulation of specific mitigation strategies. The court generally agreed that CEQA permits a lead agency to defer specifically detailing mitigation measures as long as the lead agency commits itself to mitigation and to specific performance standards, but found that the County had only committed itself to a specific mitigation goal. The court went on to explain that the County could have approved the Project even if the Project would cause significant and unavoidable impacts despite the proposed mitigation measures if the County had adopted a Statement of Overriding Considerations that made such findings. But because the County concluded that the proposed mitigation measures rendered the environmental issue less than significant, the court rejected the County’s conclusion because the court concluded that the mitigation measures proposed were not viable or effective. (*Gray v. County of Madera* (2008) 167 Cal. App. 4th 1099, 1118-19, 85 Cal. Rptr. 3d 50, 67-68; See also *Fairview Neighbors v. County of Ventura* (1999) 70 Cal. App. 4th 238, 243-45, 82 Cal. Rptr. 2d 436, 440-41. Appellant claimed that mitigation measures were too speculative and improperly deferred mitigation, even though the County had adopted a statement of overriding considerations related to the environmental impacts to which the mitigation measures applied. The court dismissed the argument, noting that when an EIR explains what the environmental impacts would be, and it concludes that the impacts would be significant and unmitigable regardless of the proposed mitigation measures or future studies, the public agency may adopt a statement of overriding considerations and approve the project.)

develop outcome based performance standards at this time, should the Committee prefer to keep PSH's proposed outcome based performance standards, Staff would suggest the following changes:

1. Raise the mitigation ratio for State and Federally Listed Threatened and Endangered (T&E) Species, as well as State Fully Protected Species to 3:1. The 3:1 ratio is suggested to account for loss of reproductive output and to account for the potential that T&E or fully protected birds will be undetected by survey protocols (surveys which sample only a portion of the project site a limited number of times per year), overlooked by surveyors, or scavenged by predators prior to detection.
2. Staff further suggests the TAC develop ratios for non-T&E or fully protected species based upon guilds of birds grouped by habitat preference (such as riparian song birds, scrubland birds, raptors, etc.). Such ratios should be developed with a focus on special status species within the guild, acknowledging that actions benefiting one member of a guild will often benefit all members of the guild.
3. The condition should not include language tying mitigation to a showing of "population level impacts caused by PSEGS" as that would be almost impossible to assess.

Staff remains unconvinced that the suggested performance standards would be in the best interest of the avian species that could be impacted by this project. The TAC should be able to disperse mitigation monies in a way that best mitigates for the most significant impacts caused by the operation of PSEGS, and not be constrained to mitigating only for the species taken during the initial three year monitoring period.

**V. Proposed Condition of Certification PD-1 Does Not Make the Project Description Unstable. Analysis of a Future Thermal Energy Storage System Can Be Appropriately Handled Through a Future Petition to Amend.**

Nothing about PSH's revised phasing plan changes the completeness of Staff's analysis of the PSEGS project description. The permit would be for the two-tower project proposed in the current Petition to Amend. Staff has thoroughly analyzed the two-tower project presented in this Petition to Amend. PSH's revised phasing plan has not changed the two-tower project to a one-tower project: it has revised the *construction schedule* to construct Phase I first, subject to all Conditions of Certification, and the construction of Phase II has been additionally conditioned upon meeting the requirements set forth in Condition of Certification **PD-1** to bring a new Petition to Amend to incorporate thermal energy storage (TES) into the design of Phase II.

It is true that with the revised phasing plan, only Phase I, including one tower, could be constructed without satisfying **PD-1**. Phase II, including the second tower, can only be constructed with the approval of a future Petition to Amend that, subject to California

Code of Regulations Title 20, section 1769, will go through a major amendment process similar to the process we have been through here to analyze the impacts of incorporating a TES system into Phase II.

CBD, CRIT and BRW have raised concerns that a future amendment to add TES may be considered outside of public view and handled by Staff without an ultimate determination to be made by the full Commission. (CRIT Opening Brief, pp 13 to 15; CBD Opening Brief, pp. 17 to 18; BRW Opening Brief, pp. 3 to 4;citations) Staff believes these concerns are unfounded.

Under California Code of Regulations, Title 20, Section 1769 (which is encompassed within the Energy Commission's Certified Regulatory Program approved pursuant to Public Resources Code section 21080.5), any post-certification modification to the project design must be proposed through a Petition to Amend, which requires the Petitioner to provide specific information to Staff. (1769(a)(1)(A-I).) Staff would review the petition, and if the modification will result in a change or deletion of a condition adopted by the Commission in the final decision, the petition must be processed as a formal amendment. (1769(a)(2) and (a)(3).) Given the high-likelihood that a Petition to Amend brought under **PD-1** would result in changes to conditions of certification, Staff believes a formal amendment will be required. A formal amendment would also be required if Staff determined that the modification would meet the criteria in 1769(a)(2) and a person objected to that Staff determination. (1769(a)(3).) A formal amendment must be approved by the full Commission.

## **VI. Traffic and Transportation**

CRIT argues that glint and glare impacts to pilots will remain significant even with the implementation of **TRANS-7**. (CRIT Opening Brief, p. 11.) Staff disagrees and believes that with modifications made to **TRANS-7** at the workshop, this issue has been resolved.

Staff's proposed Condition of Certification **TRANS-7** would require reducing glare impacts so that there is not a DSRH (direct solar reflections from heliostats) Event that is a Health and Safety Issue. The project owner will be required to monitor for DSRH Events and document, investigate and resolve legitimate complaints regarding glint and glare events. **TRANS-7** provides for a metric that can validate that the potential for human health and safety hazards have been avoided. It requires the project owner to obtain field measurements in candela per meters squared and watts per meter squared and to analyze those field measurements using the methodologies established by Clifford Ho of Sandia Labs.<sup>4</sup> **TRANS-7** requires the project owner to continue to try different methods of reducing glare impacts so that there is not a DSRH Event that is a health and safety issue.

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<sup>4</sup> The current version of **TRANS-7** references a "2010" document, but the reference should be changed to "2011" to reflect the most recent methodologies.

The ISEGS project owners and their engineers, working with Mr. Ho, are in the process of resolving the glare impacts on pilots. (Exhs. 1191 and 2033; 7/29/2014 RT pp. 48 to 49.) The information obtained from this process will help inform PSH's compliance with **TRANS-7**.

Staff testified that the revised **TRANS-7** will provide for meaningful resolution of complaints about glare, and acknowledged that the revised language requires that the glare would have to be reduced to less than significant. (7/29/14 RT pp. 112 to 113; see also the testimony of Clifford Ho at 7/29/14 RT pp. 89 to 90.)

CRIT also stated that there was no mitigation for glint and glare on cultural or recreational users. (CRIT Opening Brief, p. 9.) This is not accurate. **TRANS-7** requires the Heliostat Positioning and Monitoring Plan (HPMP) to identify heliostat movements and positions that could result in potential exposure of observers at various locations including pedestrians and hikers in nearby wilderness areas. **TRANS-7** also requires the HPMP to describe how heliostat operation would address potential human health and safety hazards from DSRH Events at locations of these same observers. And **TRANS-7** also requires a toll-free number for the public to report complaints related to glint and glare.

## VII. Cultural Resources

### A. Native American Advisory Group

In response to CRIT's comment that "the measure must acknowledge that the representative will attend the Advisory Group meetings solely to gather information to take back to the CRIT Tribal Council for decisions," (CRIT Opening Brief, p. 8.) Staff notes that parliamentary procedures could include a delayed 30-day review process, whereby any tribes that cannot delegate advisory role authority to tribal staff or that opt to review and perhaps override their staff's advice would be able to do so within the 30-day delay period prior to the Energy Commission taking deferred action based upon final tribal advice. Native American Advisory Group meetings would be convened no less than 60 days apart.

Staff maintains its position that an advisory group for Palen would be more successful than the Genesis Tribal Working Group for at least four different reasons. (See 7/29/14 RT pp. 240 to 242; Exh. 2017, pp. 31-32.)

1. PROCESS. Parliamentary procedures *are not currently* used to facilitate Genesis Tribal Working Group deliberations. Genesis working group input is based upon the relatively loose consensus of whichever tribal representatives happen to attend any particular meeting. Parliamentary procedures *would be developed* for a Palen-specific Native American Advisory Group.

2. FISCAL CONTROL. The Genesis project owner, *NextEra Energy Resources*, manages Genesis mitigation funds for the November 2011 construction discovery of

buried archaeological deposits and contracts related to the mitigation of construction damage to those deposits. The *Energy Commission would manage Palen mitigation funds*.

3. TIME. A significant part of the Genesis discovery mitigation effort relates to the mitigation of on-site historical resources unearthed during construction. Such mitigation implicitly involves *owner-driven construction-related time constraints* which can diminish, at times greatly, the quality of mitigation deliverables. In contrast, the Palen mitigation effort focuses largely on the mitigation of the amended project's effects on off-site historical resources, where owner-driven time constraints *would not encumber mitigation integrity*.

4. EXPERIENCE. The Tribal Working Group for Genesis was developed in an *ad hoc fashion with participants* (Affiliated Tribes, project owner, and one Federal agency and one State agency) *who were minimally acquainted* prior to the November 2011 construction discovery. The Tribal Working Group has steadily improved its functionality through a straightforward process of trial and error, which has become grounded in the development of strong working relationships among the group's participants. The development of the Native American Advisory Group for Palen would *incorporate the lessons learned from our collective experience on the mitigation of the construction discovery at Genesis*.

And Staff reiterates that at any time during mitigation implementation, should a particular affiliated tribe wish to meet exclusively with the Energy Commission, then the Energy Commission will honor any such request of the tribe.

## **B. CRIT Was Not Prejudiced By the Selected Baseline**

CRIT also argues that it was prejudiced by its inability to present evidence related to the direct disturbance to the project site. (CRIT Opening Brief, p. 19 and 20.) When a party has the ability to participate in a proceeding – was specifically invited to participate – but fails to do so, the assertion of prejudice is misplaced. CRIT could have, but did not, participate in the original PSPP proceeding.<sup>5</sup> CEQA does not require an agency to give limitless opportunity to parties who become involved in later phases to go back and provide more information on an issue that was addressed and settled in an earlier

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<sup>5</sup> On May 5, 2009, AECOM, on behalf of the applicant, sent letters to NAHC-affiliated tribes. Letters were followed up with phone calls on July 8 and 28, 2009. CRIT did not respond. (Palen Revised Staff Assessment September 2010: 5) Between July 2009 and July 2010, BLM made multiple tribal contacts via letter, phone, email and meetings. This led to the development of a programmatic agreement under Section 106 of the NHPA, the intent of which was to mitigate the original project's adverse affects on historic properties (Palen Solar Energy Project PA/FEIS May 2011: 5-5). The programmatic agreement is attached to the Final Environmental Impact Statement as Appendix H. Pages 67 through 76 of the programmatic agreement provides a table that lists all BLM Palen-related contacts with Tribes. Multiple contacts were made with CRIT, but the table indicates that there were no CRIT responses to BLM's consultation outreach efforts.

proceeding. As discussed in Section II of this brief above, lack of participation in the first proceeding does not require or even enable the Energy Commission to allow comments about matters that were previously adjudicated and resolved.

### **C. Nexus Between the CUL-1 Mitigation Measures and Effects on Historical Resources**

PSH has repeatedly contended throughout the amendment process that Staff has failed to demonstrate a nexus between the suite of mitigation measures proposed in **CUL-1** and the amended project's potential effects on historical resources. PSH also contends that Staff has never provided any justification for the proposed budget for **CUL-1**. This is incorrect. Staff has articulated the nexus between **CUL-1** and the amended project's potential effects on numerous occasions: 1) Final Staff Assessment (Exh. 2001, pp. 4.3-158–161); Staff's Response to Committee Direction from the January 7, 2014 Committee Conference (Exh. 2019, Attachment "C"); Staff's Supplemental Staff Assessment and Testimony (Exh. 2017, pp. 25 to 32); and Staff's sworn testimony at the July 29, 2014 Evidentiary Hearings.

### **VIII. Staff's Avian Risk Assessment**

PSH claims that Staff has conflated "flux generated by heat" and "solar flux." (PSH Opening Brief, pp. 10 and 13.) This is incorrect. There is no "conflation" in Staff's testimony. Staff has consistently used the term "flux" to refer to the presence of light beams transferring energy, through radiation, and "flux intensity" to refer to the intensity of the flux (e.g., referring to whether the energy flow is at a rate of 1 kW/m<sup>2</sup> or a rate of 10 kW/m<sup>2</sup>.) Flux is defined as the rate of flow for a fluid, particles, or energy per unit area. (Merriam-Webster's Dictionary, Tenth Edition.) Consequently, heat flux is a generic term that can be used to describe any of the 3 forms of heat transfer: conduction, convection, or radiation in units of kW/m<sup>2</sup>. The only conflation that Mr. Koretz correctly points out is in the USFWS report where the authors expected the air to be superheated due to the radiation transfer from the heliostats to the boiler. (7/30/14 RT p. 250.) Staff has never been confused by this. Staff laid out the correct heat transfer mechanism for birds being heated up due to radiative flux in prior testimony (Exh. 2000, p. 4.2-401). The conflation is not supported in the record and the terms "flux generated by heat" and "solar flux" all represent radiation as the heat transfer mechanism.

PSH criticizes Staff's citations supporting their dose-response model. (PSH Opening Brief, p. 11.) This criticism is unfounded. Staff's citations are to reports that relate harm resulting from energy transfer to a body through broadband electromagnetic radiation in the visible and near-visible spectrum; some reference flames as a radiation source, and some the sun as a low intensity source. The typical source for such non-ionizing radiation is a heated mass, such as a fire, or the sun. When absorbed into a surface, this thermal radiation energy is converted to heat in the receiving material, causing a rise in its temperature. (Exh. 2000, p. 4.2-401.)

For our purposes here, “solar” radiation is just another form of “thermal” radiation, and has the same effects on an absorbing surface. Whether the surface (here, birds’ feathers) is being heated by 5 kW/m<sup>2</sup> of thermal radiation from the sun or from a fire makes little difference. The effect is the same. Staff’s use of fire-related studies of harm from “thermal radiation” is entirely appropriate. That Staff used data on the effects of incident radiation emitted by fires (or other controlled man-made thermal sources) on clothed humans, or other materials such as wood, is due to the fact that until now, these have been the sources and targets of interest for scientific studies of concentrated thermal radiation. Until the advent of concentrated solar power towers with heliostat fields, there hasn’t been a concentrated source of solar flux impacting birds that could be studied.

Staff acknowledges that there remains some level of uncertainty of exactly how birds are being impacted by solar flux and at what flux levels. There is no uncertainty, however, that the proposed PSEGS tower would have a flux field airspace volume that transmits 2-times the total power transmitted by an Ivanpah tower, and which occupies 3.8-times greater volume than an ISEGS tower. (Exh. 2018, p. 40.) Basic physics informs us that there is no uncertainty that an absorptive surface (i.e. feathered bird) that is exposed to that flux field will experience heating. Basic physics also informs us that because heat always flows from hot to cold, we can know that some of that radiative flux-turned-to-heat will be conducted into the bird’s body. (Exh. 2000, 4.2-398 to 399, 401.) There is no uncertainty that the intensity of that surface-heating over the heliostat field will vary from high levels that can cause feather ignition within seconds, to intermediate levels that can weaken and melt the feathers, to lower levels that can steadily heat the feathers over minutes. (Exh. 2000, p. 4.2-410.)

PSH states that “avian fatalities from solar flux are virtually non-existent outside the near tower area.” (PSH Opening Brief, p. 10.) This assumes that avian fatalities from solar flux are solely those carcasses or feather spots having visually identifiable burned or melted feathers. None of the “unknown cause” mortality counts are considered by the petitioner in their scale-up estimates, even in the field zone where bird carcasses are routinely found with singed feathers. This assumption is unrealistic.

PSH claims that they used Staff’s dose-response theory to estimate their expected numbers of solar flux avian impacts in Exhibit 1205, however PSH only included birds that had singed feathers. Because of this, PSH’s Exhibit 1205 does not portray an accurate representation of Staff’s position. Based on the available data, Staff believes that a dose-response model assessing the PSEGS risk relative to ISEGS is the better approach to take.

