June 15, 2010

Alan Solomon
Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

RE: Palen Solar Power Project, Docket No. 09-AFC-7
Preliminary Spring 2010 Survey Results Corrected and Preliminary Impact Calculations
Technical Area: Biological Resources

Dear Mr. Solomon:

Attached please find the Preliminary Spring 2010 Survey Results Corrected and Preliminary Impact Calculations for the Palen Solar Power Project.

If you have any questions on this submittal, please feel free to contact me directly.

Sincerely,

Alice Harron
Senior Director, Development
May 27, 2010

Ms. Susan Sanders  
California Energy Commission  
1516 Ninth Street  
Sacramento, California 95814

Subject: Palen Solar Power Project (09-AFC-7) – Preliminary Spring 2010 Survey Results Corrected and Preliminary Impact Calculations for Biological Resources

Dear Ms. Sanders:

On behalf of Palen Solar I, LLC, AECOM is submitting preliminary results of biological surveys conducted in spring 2010 for desert tortoise (*Gopherus agassizii*; DT), rare plants, jurisdictional waters, and incidental wildlife occurrences for the Palen Solar Power Project. This information was requested at the Palen and Blythe Staff Workshops conducted on April 28 and 29, 2010. Preliminary survey results for DT, rare plants and jurisdictional waters were submitted to the CEC on May 7, 2010. The results provided herein supersede the results provided on May 7, 2010. The preliminary survey results are presented in figures and tables attached. Table 1 and Figure 1 present a summary of observations of DT sign and DT occurrences noted during spring 2010 surveys. Table 2 and Figure 2 present the rare plant population counts observed during spring 2010 surveys. Figure 3 presents the results of a formal jurisdictional delineation of waters of the State. Table 3 and Figure 4 present incidental wildlife occurrences observed during protocol surveys for DT, rare plants, western burrowing owl, and jurisdictional waters. Results from the fall and spring 2009 surveys are not included in the tables and figures for DT, rare plants or incidental wildlife occurrences. However, the jurisdictional waters figure does include results from the 2009 surveys and a table presenting the results of both survey years is provided in the figure. Please note that the results provided in Tables 1 through 3 and Figures 1, 2 and 4 are simply the results of our observations within the 100 percent coverage study area and associated buffers. These tables and figures do not represent total impacts within disturbance areas because we surveyed wider corridor widths and additional areas for contingency in the engineering design that ultimately will not be disturbed.

Figure 5 presents the additional disturbance areas surveyed in 2010 for an access road, transmission line corridor, and additional project components that are outside the 2009 project footprint. Therefore, the total Project Disturbance Area has been revised to be 4,051.1 acres. This total is still preliminary and subject to further refinement in the engineering design. A revised total disturbance area will be provided in final technical reports to be submitted to the CEC in early June.

Figure 6 presents preliminary direct impacts to all cover types, including state waters, resulting from the revised Project Disturbance Area. These impact calculations are still preliminary and subject to further refinement in the engineering design. Revised impact calculations will be provided in final technical reports to be submitted to the CEC in early June.

Please let us know if you have any questions.
Sincerely,

Mr. Bill Graham
Principal

Enclosure:  Table 1. Palen Solar Power Project Desert Tortoise Observations Spring 2010
Table 2. Palen Solar Power Project Rare Plant Population Counts Spring 2010
Table 3. Palen Solar Power Project Incidental Wildlife Occurrences
Figure 1. Preliminary Results Desert Tortoise Spring 2010 Surveys
Figure 2. Preliminary Results Botany Rare Plants Spring 2010 Surveys
Figure 3. Preliminary Results State Waters Spring 2010 Surveys
Figure 4. Preliminary Results Incidental Wildlife Occurrences Spring 2010 Surveys
Figure 5. Preliminary Disturbance Areas May 2010
Figure 6. Preliminary Impacts to Cover Types May 2010
CD. Raw Data Files in Excel and Shapefiles

cc. Alice Harron, Solar Millennium
    Elizabeth Ingram, Solar Millennium
    Scott Galati, Solar Millennium Counsel
    Mark Luttrell, AECOM
<table>
<thead>
<tr>
<th>Description</th>
<th>Proposed Project Study Area</th>
<th>Reconfigured Alternative Project Study Area</th>
<th>Proposed Project/Reconfigured Alternative Study Area¹</th>
<th>Buffer</th>
<th>Incidental Observations Outside Buffer Area</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult Tortoise</td>
<td>1</td>
<td></td>
<td></td>
<td>3</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Active Tortoise Burrow or Pallet - Class 1</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
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<tr>
<td>Tortoise Burrow or Pallet - Class 3 (deteriorated, definitely tortoise)</td>
<td>1</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td>3</td>
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<tr>
<td>Possible Tortoise Burrow or Pallet (Class 4 or 5)</td>
<td></td>
<td>1</td>
<td></td>
<td>6</td>
<td></td>
<td>7</td>
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<td>Tortoise Scat</td>
<td>5</td>
<td></td>
<td></td>
<td>10</td>
<td>3</td>
<td>18</td>
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<tr>
<td>Tortoise Bone Fragment - Mineralized</td>
<td>2</td>
<td>5</td>
<td></td>
<td>5</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Tortoise Bone Fragment - Not Mineralized</td>
<td></td>
<td>37</td>
<td>1</td>
<td>26</td>
<td>1</td>
<td>68</td>
</tr>
<tr>
<td>Tortoise Carcass (shell bone falling apart; growth rings on scutes are peeling)</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Tortoise Tracks</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>1</td>
<td>3</td>
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</tbody>
</table>

¹This encompasses the areas where the Proposed Project Study Area and Reconfigured Alternative Study Area overlap.
Table 2. Palen Solar Power Project Rare Plant Population Counts Spring 2010

<table>
<thead>
<tr>
<th>Species</th>
<th>Proposed Project Study Area</th>
<th>Reconfigured Alternative Project Study Area</th>
<th>Proposed Project/Reconfigured Alternative Study Area</th>
<th>Buffer</th>
<th>Incidental Observations Outside Buffer Area</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four wing saltbush</td>
<td></td>
<td></td>
<td></td>
<td>920</td>
<td></td>
<td>920</td>
</tr>
<tr>
<td>Cottontop cactus</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Harwood’s milkvetch</td>
<td></td>
<td></td>
<td></td>
<td>152</td>
<td></td>
<td>152</td>
</tr>
<tr>
<td>Harwood’s wollystar</td>
<td></td>
<td>1</td>
<td></td>
<td>37</td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>Ribbed cryptantha</td>
<td>6,750</td>
<td>337</td>
<td>30</td>
<td>68,859</td>
<td></td>
<td>75,976</td>
</tr>
<tr>
<td>Utah milkvine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>

Note: Table includes a total of 6 rows of data, covering species such as Four Wing Saltbush, Cottontop Cactus, Harwood’s Milkvetch, Harwood’s Wollystar, Ribbed Cryptantha, and Utah Milkvine. Each row details population counts across different study areas with noted buffer and incidental observations. The final column presents the grand total for each species. Additional notes indicate that each point on the figure may represent multiple individuals and that the second note explains the overlap areas between the proposed project and reconfigured alternative study areas.

Note 1: Each point on the figure may represent multiple individuals.

Note 2: This encompasses the areas where the Proposed Project Study Area and Reconfigured Alternative Study Area overlap.
<table>
<thead>
<tr>
<th>Species</th>
<th>Proposed Project Study Area</th>
<th>Reconfigured Alternative Project Study Area</th>
<th>Proposed Project/Reconfigured Alternative Study Area&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Buffer</th>
<th>Incidental Observations Outside Buffer Area</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Badger Den or Burrow</td>
<td>1</td>
<td>25</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>31</td>
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<tr>
<td>Ferruginous Hawk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Kit Fox Burrow or Complex</td>
<td>2</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Loggerhead Shrike</td>
<td>2</td>
<td>1</td>
<td></td>
<td>3</td>
<td>3</td>
<td>9</td>
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<tr>
<td>Mojave Fringe-toed Lizard</td>
<td>5</td>
<td>310</td>
<td>62</td>
<td>11</td>
<td></td>
<td>388</td>
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<tr>
<td>Unidentified Woodpecker Species – Nest Cavity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
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<tr>
<td>Northern Harrier</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Swainson’s Hawk</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

<sup>1</sup>This encompasses the areas where the Proposed Project Study Area and Reconfigured Alternative Study Area overlap.
DT Observations (Spring 2010)

- Adult Tortoise
- Juvenile Tortoise
- Tortoise Burrow (Active) - Class 1
- Tortoise Burrow - Class 2
- Tortoise Burrow - Class 3
- Tortoise Burrow - Class 4
- Tortoise Scat - Class 1
- Tortoise Scat - Class 2
- Tortoise Scat - Class 3
- Tortoise Scat - Class 4
- Tortoise Scat - Class 5
- Tortoise Carcass - Class 4
- Tortoise Bone Fragment (Class 5) - Not Mineralized
- Tortoise Bone Fragment (Class 5) - Mineralized
- Tortoise Tracks

Map Location

Legend

- Proposed Project Study Area
- Project Disturbance Area
- Alternative Disturbance Area
- Alternative 3/4-mile - Buffer Transect
- Alternative 1-mile - Buffer Transect
- 3/4-mile - Project Buffer Transect
- 1-mile - Project Buffer Transect
- 1000-ft - Project Buffer Transect
- Study Area (Surveyed in 2009)
- First Solar Study Area

Source: AECOM 2010; SolarMillennium 2010

Preliminary Results
Desert Tortoise
Spring 2010 Surveys

Date: May 2010
Rare Plant Observations

CNPS 1B and 2
- Harwood’s milkvetch
- Harwood’s woollystar
- four wing saltbush

CNPS List 4
- Utah milkvivne
- ribbed cryptantha

BLM-requested Cactus Species
- cottontop cactus
Jurisdictional Waters of the State of California

Desert Dry Wash Woodland
- Wash Dependent Vegetation
- Riparian Interfluve
- Vegetated Ephemeral Dry Wash

Other Waters
- Unvegetated Ephemeral Dry Wash

<table>
<thead>
<tr>
<th>Jurisdictional Waters of the State</th>
<th>Project Disturbance Area</th>
<th>Reconfigured Alternative Disturbance Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desert Dry Wash Woodland</td>
<td>Wash Dependent Vegetation</td>
<td>1.3</td>
</tr>
<tr>
<td></td>
<td>Riparian Interfluve</td>
<td>43.6</td>
</tr>
<tr>
<td></td>
<td>Vegetated Ephemeral Dry Wash</td>
<td>99.1</td>
</tr>
<tr>
<td>Unvegetated Ephemeral Dry Wash</td>
<td>Unvegetated Ephemeral Dry Wash</td>
<td>364.0</td>
</tr>
</tbody>
</table>

*Note: The Reconfigured Alternative Disturbance Area encompasses the disturbance caused by construction of the solar power blocks only and is not a complete engineering design.*

Map Location

Proposed Project Study Area
- Proposed Project DARSA
- Project Disturbance Area
- Study Area (Surveyed in 2009)
- First Solar Study Area

Palen Solar Power Project
Figure 3
Preliminary Results
State Waters
Spring 2010 Surveys

Date: May 2010
Incidental Wildlife Observations

Spring 2010 Surveys

LEGEND

- American Badger Den
- Mojave fringe-toed lizard
- American Badger Predation Burrow
- Ferruginous Hawk
- Kit Fox Burrow
- Kit Fox Complex
- Loggerhead Shrike
- Nest Cavity - Unidentified Woodpecker Species
- Northern Harrier
- Swainson’s Hawk

Map Location

<table>
<thead>
<tr>
<th>Map Location</th>
<th>Legend</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>Proposed Project Study Area</td>
</tr>
<tr>
<td>NV</td>
<td>Reconfigured Alternative Disturbance Area</td>
</tr>
<tr>
<td>UT</td>
<td>Project Disturbance Area</td>
</tr>
<tr>
<td>ID</td>
<td>Reconfigured Alternative BRSA</td>
</tr>
<tr>
<td>AZ</td>
<td>Project Disturbance BRSA</td>
</tr>
<tr>
<td></td>
<td>Study Area (Surveyed in 2009)</td>
</tr>
<tr>
<td></td>
<td>First Solar Study Area</td>
</tr>
</tbody>
</table>

Source: NAIP 2009; AECOM 2010; SolarMillennium 2010

Palen Solar Power Project

Figure 4
Incidental Wildlife Observations
Spring 2010 Surveys

Date: May 2010
Palen Solar Power Project
Figure 5
Preliminary Disturbance Areas
Spring 2010 Surveys

LEGEND

CA
NV
AZ
UT
IDOR

Map Location

Legend

Disturbance Area (3,870.8 acres)
Additional Disturbance Areas 2010 (152.3 acres)
First Solar Overlap Area (28 acres)
Disturbance Area 2009

Source: NAIP 2009; AECOM 2010; SolarMillennium 2010

Date: May 2010
Vegetation Communities

Riparian
- Desert dry wash woodland (147.5 acres)
- Unvegetated ephemeral dry wash (164.0 acres)

Upland
- Sonoran creosote bush scrub (3421.9 acres)
- Stabilized and partially stabilized desert dunes (284.7 acres)

Other
- Agriculture (3.0 acres)
- Developed (1.9 acres)

First Solar overlap area not surveyed by AECOM. Resources and acreage to be determined.
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-7
PROOF OF SERVICE
(Revised 5/14/2010)

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California ISO
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---
DECLARATION OF SERVICE

I, Carl Lindner, declare that on, June 15, 2010, I served and filed copies of the attached Preliminary Spring 2010 Survey Results Corrected and Preliminary Impact Calculations for Biological Resources, dated May 27, 2010.

The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: [http://www.energy.ca.gov/sitingcases/solar_millennium_palen].

The document has been sent to 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;

__ ___ by personal delivery or by overnight delivery service or depositing in the United States mail at Camarillo, California with postage or fees thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses NOT marked “email preferred.”

AND

For filing with the Energy Commission:

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

OR

______ depositing in the mail an original and 12 paper copies, along with 13 CDs, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 09-AFC-7
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct.

[Signature]

Carl E. Lindner