July 19, 2013

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

Subject: SUPPLEMENTAL RESPONSE TO DATA REQUEST 14; TRAFFIC STUDY UPDATE
PALEN SOLAR ELECTRIC GENERATING SYSTEM
DOCKET NO. (09-AFC-7C)

Enclosed for filing with the California Energy Commission is the electronic version of
SUPPLEMENTAL RESPONSE TO DATA REQUEST 14; TRAFFIC STUDY UPDATE,
for the Palen Solar Electric Generating System (09-AFC-7C).

Sincerely,

Marie Fleming
Date: July 3, 2013  
To: Scott Galati, Centerline  
From: Rafael Cobian, PE, LEED GA, Fehr & Peers  
Chris Gray, AICP, Fehr & Peers  
**Subject: Palen Solar Power Project: Traffic Study Update**  

This memorandum documents our update of transportation related information associated with the construction and operation of the Palen Solar Power Project (PSPP). This update relates to an increase in construction workers associated with the site. This memorandum provides the following information:

- Updated existing roadway segment peak hour Level of Service (LOS) based on 2013 data  
- Updated existing intersection peak hour LOS based on new traffic counts collected  
- Updated peak hour roadway segment impacts for construction activity  
- Updated intersection LOS during construction activity  
- Updated peak hour roadway segment impacts for facility operation  
- Update intersection LOS during facility operation

### Existing Roadway Segment Operations

Table 1 below corresponds with Table 5.13-5 as provided in your August 2009 Environmental Impact Report. As shown in this table, the existing roadway segments within the study area including I-10 and Corn Springs Road operate at LOS A. Data for this table was taken from the PeMS database, which is maintained by Caltrans and also a recent traffic count which was provided by National Data Services.

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>Number of Lanes</th>
<th>2013 Traffic Counts</th>
<th>Capacity</th>
<th>V/C Ratio</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-10: West of the Project Site</td>
<td>4</td>
<td>1,611</td>
<td>8,000</td>
<td>0.20</td>
<td>A</td>
</tr>
<tr>
<td>I-10: East of the Project Site</td>
<td>4</td>
<td>1,600</td>
<td>8,000</td>
<td>0.20</td>
<td>A</td>
</tr>
<tr>
<td>Corn Springs Road</td>
<td>2</td>
<td>2</td>
<td>2,000</td>
<td>0.00</td>
<td>A</td>
</tr>
</tbody>
</table>

Source: PeMS, NDS
Existing Intersection LOS

Table 2 below documents the existing delay and LOS for the study intersections based on traffic counts which were collected in 2013. This table corresponds to Table 5.13-6 in the August 2009 EIR.

<table>
<thead>
<tr>
<th>Study Intersection</th>
<th>Existing (2013) Delay and LOS</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delay</td>
<td>LOS</td>
<td>Delay</td>
</tr>
<tr>
<td>I-10 Westbound Ramps/Corn Springs Road</td>
<td>5.8</td>
<td>A</td>
<td>7.7</td>
</tr>
<tr>
<td>I-10 Eastbound Ramps/Corn Springs Road</td>
<td>6.3</td>
<td>A</td>
<td>2.9</td>
</tr>
</tbody>
</table>

Notes:
LOS and delay calculated based on methodologies provided in the 2010 Highway Capacity Manual.

Roadway Segment Operations during Construction

Table 3 documents the peak hour roadway traffic associated with construction activity at the site. This table generally corresponds to Table 5.13-7 in the August 2009 EIR. As shown in the table below, the segment of Corn Springs Road will exceed capacity if all of the construction workers arrive and depart within one hour. During both the morning and evening peak hours, this roadway will operate at LOS F.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I-10: West of the Project Site</td>
<td>1,643</td>
<td>A</td>
<td>2,799</td>
<td>A</td>
</tr>
<tr>
<td>I-10: East of the Project Site</td>
<td>1,632</td>
<td>A</td>
<td>2,788</td>
<td>A</td>
</tr>
<tr>
<td>Corn Springs Road</td>
<td>2</td>
<td>A</td>
<td>2,311</td>
<td>F</td>
</tr>
</tbody>
</table>

Notes:
Volume is peak hour volume
Caltrans Year 2013 traffic volumes were expanded to year 2015 using the rate of expansion (1%/year) seen between 2012 and 2013.
Intersection LOS during Construction

As shown in Table 4 below, the addition of construction trips causes both intersections to operate at LOS F during the AM Peak Hour. The LOS is C or better during the PM Peak Hour because much of the traffic leaving the site is able to enter the freeway while operating as a free or uncontrolled movement. This table partially corresponds to Table 5.13-8 as shown in the August 2009 EIR.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM Peak</td>
<td>PM Peak</td>
</tr>
<tr>
<td>I-10 Westbound Ramps/Corn Springs Road</td>
<td>6.3 A</td>
<td>7.7 A</td>
</tr>
<tr>
<td>I-10 Eastbound Ramps/Corn Springs Road</td>
<td>5.8 A</td>
<td>2.9 A</td>
</tr>
</tbody>
</table>

Notes:
Caltrans Year 2013 traffic volumes were expanded to year 2015 using the rate of expansion (1%/year) seen between 2012 and 2013.

Roadway Segment Operations during Operations of the Facility

Table 5, which partially corresponds to Table 5.13-7 of the August 2009 EIR, addresses any roadway segment impacts associated with the operation of the site. Our estimate of operational traffic assumes that 134 employee trips occur at the site during the peak hours. As shown in the table, all of the study intersections operate at an acceptable LOS.

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>Standard Operations Year (2016) Volume with PSPP</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-10: West of the Project Site</td>
<td>1,726</td>
<td>A</td>
</tr>
<tr>
<td>I-10: East of the Project Site</td>
<td>1,715</td>
<td>A</td>
</tr>
<tr>
<td>Corn Springs Road</td>
<td>136</td>
<td>A</td>
</tr>
</tbody>
</table>

Notes:
Caltrans Year 2013 traffic volumes were expanded to year 2016 using the rate of expansion (1%/year) seen between 2012 and 2013.
Intersection LOS during Operations of the Facility

Table 6 documents the intersection LOS after the 134 employee trips associated with the operation of the PSPP travel to and from the site during the peak hours of operation. All of the intersections are projected to operate at LOS A. This table provides updated information for Table 5.13-8 from the August 2009 EIR.

<table>
<thead>
<tr>
<th>Study Intersection</th>
<th>AM Peak Delay</th>
<th>AM Peak LOS</th>
<th>PM Peak Delay</th>
<th>PM Peak LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-10 Westbound Ramps/Corn Springs Road</td>
<td>6.3 A</td>
<td>7.7 A</td>
<td>4.6 A</td>
<td>1.2 A</td>
</tr>
<tr>
<td>I-10 Eastbound Ramps/Corn Springs Road</td>
<td>5.8 A</td>
<td>2.9 A</td>
<td>8.5 A</td>
<td>6.2 A</td>
</tr>
</tbody>
</table>

Notes:
Caltrans Year 2013 traffic volumes were expanded to year 2016 using the rate of expansion (1%/year) seen between 2012 and 2013.

Conclusions

As shown in the tables above, the only traffic impacts associated with the PSPP occur during construction. The impacts include the two study intersections and also Corn Springs Road, which exceeds its capacity.

The August 2009 EIR noted an intersection impact at the I-10 Westbound Ramps/Corn Springs Road intersection, consistent with our findings. This document recommended limiting the number of employees which would arrive within a peak hour by staggering hours of construction, carpooling, park and ride, and other similar techniques. These same strategies would also address the impact at the other intersection, I-10 Eastbound Ramps/Corn Springs Road intersection. The project will apply the same previously accepted mitigation identified in the previous analysis which required preparation of a Traffic Control Plan with the condition that the traffic management techniques would ensure no stacking on I-10 at the Corn Springs Road on-ramp and off-ramps. Specifically, the project must meet a performance standard of no more than 10 cars in a three minute periods. With the proposed performance standard, the impacted locations will operate at acceptable levels.

A new impact noted in our analysis is a roadway segment impact for Corn Springs Road, which will exceed the peak hour capacity. This impact occurs along the section of Corn Springs Road north of I-10, which must accommodate all project vehicles. Limiting the number of construction vehicles which arrive during the peak hour, as noted above, would also mitigate this impact.

To facilitate your review, we have also prepared tables following the exact format as provided in the 2009 EIR. These tables are shown on the attached page.
We hope you find the above information helpful. If you require additional information or have any questions, please contact Rafael Cobian at 714-941-8800 or by email at r.cobian@fehrandpeers.com.
Table 5.13-5 Baseline Peak hour Roadway Traffic Volumes, Design Capacities, and Levels of Service (Without the Project)

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>Number of Lanes</th>
<th>Volume</th>
<th>Capacity</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-10: West of the Project Site</td>
<td>4</td>
<td>1,611</td>
<td>8,000</td>
<td>A</td>
</tr>
<tr>
<td>I-10: East of the Project Site</td>
<td>4</td>
<td>1,600</td>
<td>8,000</td>
<td>A</td>
</tr>
<tr>
<td>Corn Springs Road</td>
<td>2</td>
<td>2</td>
<td>2,000</td>
<td>A</td>
</tr>
</tbody>
</table>

Source: PeMS, NDS

Table 5.13-6 Baseline Peak hour Intersection Levels of Service (Without the Project)

<table>
<thead>
<tr>
<th>Study Intersection</th>
<th>Existing (2013) Delay and LOS</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Delay (sec)</td>
<td>LOS</td>
</tr>
<tr>
<td>I-10 Westbound Ramps/Corn Springs Road</td>
<td></td>
<td>5.8</td>
<td>A</td>
</tr>
<tr>
<td>I-10 Eastbound Ramps/Corn Springs Road</td>
<td></td>
<td>6.3</td>
<td>A</td>
</tr>
</tbody>
</table>

Notes:
LOS and delay calculated based on methodologies provided in the 2010 Highway Capacity Manual.

Table 5.13-7 Peak hour Roadway Traffic Volumes, Design Capacities, and Levels of Service (With Project Related Traffic)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Travel Lanes</td>
<td>Volume</td>
</tr>
<tr>
<td>I-10: West of the Project Site</td>
<td>4</td>
<td>2,799</td>
</tr>
<tr>
<td>I-10: East of the Project Site</td>
<td>4</td>
<td>2,788</td>
</tr>
<tr>
<td>Corn Springs Road</td>
<td>2</td>
<td>2,311</td>
</tr>
</tbody>
</table>

Notes:
Assumes 2,311 daily worker trips for construction
Assumes 134 daily worker trips for operations. Also assumes that all workers arrive and depart during the peak hour of operations.
Volume is peak hour volume
Caltrans Year 2013 traffic volumes were expanded to year 2015 and 2016 using the rate of expansion (1%/year) seen between 2012 and 2013.
## Table 5.13-8 Project Construction and Operation Peak Hour Intersection Levels of Service

<table>
<thead>
<tr>
<th>Study Intersection</th>
<th>Year 2015 Conditions with Project Construction Traffic</th>
<th>Year 2016 Conditions with Project Operations Traffic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM Peak</td>
<td>PM Peak</td>
</tr>
<tr>
<td>I-10 Westbound Ramps/Corn Springs Road</td>
<td>&gt;50</td>
<td>F</td>
</tr>
<tr>
<td>I-10 Eastbound Ramps/Corn Springs Road</td>
<td>&gt;50</td>
<td>F</td>
</tr>
</tbody>
</table>

Notes:
LOS and delay calculated based on methodologies provided in the 2010 Highway Capacity Manual.
BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
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PALEN SOLAR ELECTRIC
GENERATING SYSTEM AMENDMENT

Docket No. 09-AFC-07C
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(Revised 07/09/2013)

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Commissioner and Presiding Member

DAVID HOCHSCHILD
Commissioner and Associate Member

Kenneth Celli
Hearing Adviser

Galen Lemei
Adviser to Presiding Member

Jennifer Nelson
Adviser to Presiding Member

Gabriel D. Taylor
Adviser to Associate Member

Eileen Allen
Commissioners’ Technical
Adviser for Facility Siting
DECLARATION OF SERVICE

I, Marie Fleming declare that on July 19, 2013, I served and filed copies of the attached SUPPLEMENTAL RESPONSE TO DATA REQUEST 14; TRAFFIC STUDY UPDATE, dated July 3, 2013. This document is accompanied by the most recent Proof of Service, which I copied from the web page for this project at: http://www.energy.ca.gov/sitingcases/palen/compliance/.

The document has been sent to the other persons on the Service List above in the following manner:

(Check one)

For service to all other parties and filing with the Docket Unit at the Energy Commission:

X I e-mailed the document to all e-mail addresses on the Service List above and personally delivered it or deposited it in the U.S. mail with first class postage to those parties noted above as “hard copy required”;

OR

I instead of e-mailing the document, I personally delivered it or deposited it in the U.S. mail with first class postage to all of the persons on the Service List for whom a mailing address is given.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am over the age of 18 years.

Dated: July 19, 2013

Marie Fleming