January 8, 2010

Commissioner Julia Levin, Presiding Member
Vice Chair James D. Boyd, Associate Member
Mr. Craig Hoffman, Project Manager
Abengoa Mojave Solar Project (09-AFC-5)
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Re: Abengoa Mojave Solar Project (09-AFC-5): Replacement Written Response to Visual Resources Data Request Set 1B, Item 74 and Information Requested by Tom Packard

Dear Commissioners Levin and Boyd:

Abengoa Solar Inc. (the “Applicant”) hereby files this correction to the Table in response to Item 74 of Data Request Set 1B promulgated by Staff on October 22, 2009. Additionally, we are responding to verbal requests by Tom Packard regarding Visual Resources.

The Applicant appreciates Staff’s time and efforts reviewing the enclosed materials. The Applicant looks forward to working with Staff to achieve complete and satisfactory resolution of all issues in a timely manner. Thank you for your time and consideration of this matter.

Sincerely,

Christopher T. Ellison
Shane E. Conway
Ellison, Schneider & Harris, L.L.P.
Attorneys for Abengoa Solar Inc.

Attachment
STATE OF CALIFORNIA

Energy Resources Conservation
and Development Commission

Application for Certification for the ABENGOA MOJAVE SOLAR POWER PLANT Docket No. 09-AFC-5

PROOF OF SERVICE

I, Karen A. Mitchell, declare that on January 8, 2010, I served the attached Replacement Written Response to Visual Resources Data Request Set 1B, Item 74 and Information Requested by Tom Packard via electronic and U.S. mail to all parties on the attached service list.

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

Karen A. Mitchell
SERVICE LIST

09-AFC-5

APPLICANT

Emiliano Garcia Sanz  
General Manager  
Abengoa Solar Inc.  
11500 West 13th Avenue  
Lakewood, CO 80215  
emiliano.garcia@solar.abengoa.com

Scott D. Frier  
Chief Operating Officer  
Abengoa Solar Inc.  
13911 Park Ave., Ste. 206  
Victorville, CA 92392  
scott.Frier@solar.abengoa.com

Tandy McMannes  
2030 Addison Street, Suite 420  
Berkeley, CA 94704  
tandy.mcmannes@solar.abengoa.com

APPLICANT’S CONSULTANTS

Frederick H. Redell, PE  
Redell Engineering, Inc.  
1820 E. Garry Ave., Ste. 116  
Santa Ana, CA 92705  
fred@redellengineering.com

COUNSEL FOR APPLICANT

Christopher T. Ellison  
Ellison, Schneider & Harris  
2600 Capitol Ave.  
Sacramento, CA 95816  
c.te@eslawfirm.com

INTERESTED AGENCIES

California ISO  
e-recipient@caiso.com

INTERVENORS

California Unions for Reliable Energy  
Tanya A. Gulesserian  
Marc D. Joseph  
Adams Broadwell Joseph & Cardozo  
601 Gateway Boulevard, Suite 1000  
South San Francisco, CA 94080  
tgulesserian@adamsbroadwell.com

ENERGY COMMISSION

JULIA LEVIN  
Commissioner and Presiding Member  
jlevin@energy.state.ca.us

JAMES D. BOYD  
Vice Chairman and Associate Member  
jboyd@energy.state.ca.us

Paul Kramer  
Hearing Officer  
pkramer@energy.state.ca.us

Chris Hoffman  
Project Manager  
choffman@energy.state.ca.us

Christine Hammond  
Staff Counsel  
chammond@energy.state.ca.us

Public Adviser’s Office  
publicadviser@energy.state.ca.us
## Visual Resources

**Item 74:**

**Information Required:**
Please provide the variation in average cooling tower heat load per hour (military time) for each month.

**Response (CORRECTED):**
Table 1 below provides the variation in average cooling tower heat load per hour for each month, as a percentage of full load.

| Time (HRS) | 1:00 | 2:00 | 3:00 | 4:00 | 5:00 | 6:00 | 7:00 | 8:00 | 9:00 | 10:00 | 11:00 | 12:00 | 13:00 | 14:00 | 15:00 | 16:00 | 17:00 | 18:00 | 19:00 | 20:00 | 21:00 | 22:00 | 23:00 | 0:00 |
|------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Month      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |
| Jan        | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 3%   | 43%   | 42%   | 36%   | 32%   | 43%   | 40%   | 51%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Feb        | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 21%  | 81%   | 85%   | 85%   | 81%   | 80%   | 80%   | 81%   | 74%   | 65%   | 1%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Mar        | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 60%  | 89%   | 91%   | 97%   | 94%   | 91%   | 89%   | 90%   | 89%   | 77%   | 14%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Apr        | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 35%  | 93%   | 98%   | 100%  | 100%  | 100%  | 100%  | 98%   | 97%   | 90%   | 84%   | 44%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| May        | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 54%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 96%   | 73%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Jun        | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 39%  | 93%   | 97%   | 97%   | 99%   | 100%  | 100%  | 99%   | 97%   | 94%   | 94%   | 82%   | 62%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Jul        | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 54%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 98%   | 73%  | 0%   | 0%   | 0%   | 0%   | 0%   |
| Aug        | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 5%   | 94%   | 100%  | 100%  | 100%  | 100%  | 100%  | 100%  | 99%   | 95%   | 95%   | 87%   | 46%  | 0%   | 0%   | 0%   | 0%   | 0%   |
| Sep        | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 73%  | 100%  | 100%  | 100%  | 97%   | 93%   | 87%   | 88%   | 88%   | 94%   | 72%   | 2%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Oct        | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 20%  | 69%   | 82%   | 72%   | 70%   | 67%   | 76%   | 84%   | 85%   | 21%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Nov        | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 31%  | 55%   | 48%   | 45%   | 45%   | 55%   | 54%   | 44%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |
| Dec        | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 3%   | 45%   | 36%   | 32%   | 36%   | 45%   | 44%   | 42%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |

Notes: Time shown is standard time (does not reflect daylight savings time).
Verbal Requests from Tom Packard

Information Requested:

1. Did the visual analysis provided assume a height of finish grade for the analysis? (i.e. did the analysis assume an average height of the equipment?)
2. Did the analysis use USGS mapping?
3. Are there cross-sections available from points along HWY 58 that show the topography obscuring the facility?

Response:

1. The analysis used an equipment height of 30 feet above the elevations set for the power islands. This was based upon the mid-point of the tallest structures in the power island area. Then, topography software which is based upon the USGS maps was used to take a cross-section profile at 15 degree azimuth increments around the project site and out to a 15-mile radius.
2. Yes, the software employed is based upon USGS mapping.
3. The following pages contain a base map and cross sections at 15 degree intervals between Highway 58 and the project site. Lines of sight are shown on the cross sections to clarify where topographic visual barriers exist between the highway and the site. The lines-of-sight were set at 30 feet above power island grade at the plant site, as noted previously in response 1, and at 5 feet above road surface on Highway 58 to account for the height of the viewer. Note that the lines-of-sight shown are not straight, but curved to take into account the curvature of the earth over this extended sight distance.
Total distance: 8 miles, 2907 feet
Ground distance: 8 miles, 2909 feet
Climbing: 194 feet
Descending: -45 feet
Elevation change: 148 feet
Min/Max: 2057/2206
Coordinates: Sec 32 T011N R004W CA San Bernar
Elevation: 2057 feet
Grade: 0%
Total distance: 6 miles, 4796 feet
Ground distance: 6 miles, 4798 feet
Climbing: 232 feet
Descending: -41 feet
Elevation change: 191 feet
Min/Max: 2057/2248
Coordinates: Sec 32 T011N R004W CA San Bernar
Elevation: 2057 feet
Grade: 0%
Total distance: 6 miles, 674 feet
Ground distance: 6 miles, 675 feet
Climbing: 213 feet
Descending: -15 feet
Elevation change: 198 feet
Min/Max: 2057/2255
Coordinates: Sec 32 T011N R004W CA San Bernar
Elevation: 2059 feet
Grade: 0%
Total distance: 5 miles, 4562 feet
Ground distance: 5 miles, 4564 feet
Climbing: 236 feet
Descending: -8 feet
Elevation change: 228 feet
Min/Max: 2057/2285
Coordinates: Sec 32 T011N R004W CA San Bernar
Elevation: 2057 feet
Grade: 0%
<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total distance</td>
<td>5 miles, 5129 feet</td>
</tr>
<tr>
<td>Ground distance</td>
<td>5 miles, 5131 feet</td>
</tr>
<tr>
<td>Climbing</td>
<td>252 feet</td>
</tr>
<tr>
<td>Descending</td>
<td>-19 feet</td>
</tr>
<tr>
<td>Elevation change</td>
<td>232 feet</td>
</tr>
<tr>
<td>Min/Max</td>
<td>2057/2290</td>
</tr>
<tr>
<td>Coordinates</td>
<td>Sec 32 T011N R004W CA</td>
</tr>
<tr>
<td>Grade</td>
<td>0%</td>
</tr>
<tr>
<td>Elevation</td>
<td>2057 feet</td>
</tr>
</tbody>
</table>
Total distance: 5 miles, 5264 feet
Ground distance: 5 miles, 5266 feet
Climbing: 257 feet
Descending: -25 feet
Elevation change: 231 feet
Min/Max: 2057/2289
Coordinates: Sec 32 T011N R004W CA San Bernar
Elevation: 2058 feet
Grade: 0%
Total distance: 7 miles, 2194 feet
Ground distance: 7 miles, 2200 feet
Climbing: 450 feet
Descending: -87 feet
Elevation change: 362 feet
Min/Max: 2057/2420
Coordinates: Sec 32 T011N R004W CA San Bernar
Elevation: 2059 feet
Grade: 1%
Total distance: 8 miles, 5044 feet
Ground distance: 8 miles, 5052 feet
Climbing: 539 feet
Descending: -164 feet
Elevation change: 374 feet
Min/Max: 2057/2492 feet

Coordinates: Sec 32 T011N R004W CA San Bernar
Elevation: 2057 feet
Grade: 0%