

DOCKET

09-AFC-9

DATE FEB 05 2010

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February 5, 2010

Eric Solorio
Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

RE: Ridgecrest Solar Power Project, Docket No. 09-AFC-9, Responses to CEC Data Requests, Data Request 48, Remaining Information

Dear Mr. Solorio:

On January 25, 2010, Ridgecrest Solar I, LLC (the Applicant) provided responses to the CEC's data requests Sets 1 and 2, dated December 22, 2009 and January 19, 2010, respectively. The Applicant provided a partial response for Data Request 48. Please find attached a complete response for Data Request 48.

If you have any questions on this data response to the Staff's Data Request 48, please feel free to contact me directly.

Sincerely,



Alice Harron
Senior Director, Development



**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV**

**APPLICATION FOR CERTIFICATION
For the *RIDGECREST SOLAR
POWER PROJECT***

Docket No. 09-AFC-9

**PROOF OF SERVICE
(Revised 2/4/2010)**

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DECLARATION OF SERVICE

I, Elizabeth Copley, declare that on February 5, 2010, I served and filed copies of the attached Ridgecrest Solar Power Project (Docket No. 09-AFC-9) Data Request #DR-ALT-48, Additional Information. 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:

[\[http://www.energy.ca.gov/sitingcases/solar_millennium_ridgecrest\]](http://www.energy.ca.gov/sitingcases/solar_millennium_ridgecrest).

The document has been sent to both 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:

- 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 Oakland, 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:

- sending an original paper copy and one electronic copy, mailed and emailed Respectively, to the address below (preferred method);

OR

- depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION

Attn: Docket No. 09-AFC-9
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.



**RIDGECREST SOLAR POWER PROJECT (09-AFC-9)
CEC STAFF DATA REQUEST NUMBERS 48**

Technical Area: Alternatives

Response Date: February 5, 2010

DR-ALT-48

Information Required:

Please identify where a transmission interconnection would occur if only the northern portion of the site was developed, including an Inyokern substation interconnection. Provide California National Diversity Data Base (CNDDDB) data and an Information Center search (Class I) for recorded sites for the potential interconnection routes.

Response:

A north-of-Brown-Road-only alternative would require relocation of the interconnection switchyard at a location abutting and to the east of the SCE ROW immediately north of Brown Road (Figure DR-ALT-48-1). The interconnection with the existing 230 kV/115kV SCE transmission lines would be made at this location. A variation on this design would be to make the interconnection with SCE at their Inyokern Substation, eliminating the need for a separate interconnection switchyard in the Project ROW (Figure DR-ALT-48-2). This route, which was identified in the CAISO Phase I Study as the only "competitive" alternative, was rejected because it would require the construction of five additional miles of new transmission line. Such a new line would have to be constructed either in the existing ROW for the SCE 230 kV line or a new ROW would have to be obtained. The existing ROW is occupied by a 115 kV transmission line in addition to the SCE 230 kV line. It is uncertain if this ROW could support a new 230 kV transmission line. Constructing a new 230 kV transmission outside of the existing ROW would be extraordinarily difficult if not infeasible since it likely would require obtaining the permission of dozens of private landowners. The route would be much longer than the alternative that would directly connect to the existing 230kV/115kV SCCE transmission line, which would be selected because it was the shortest route and most suitable location to interconnect to the SCE 230 kV line while minimizing environmental impacts and costs.

There are no CNDDDB species located within the potential interconnection route to the existing 230kV/115 kV lines. CNDDDB species located within the potential interconnection route to the Inyokern Substation are the Mohave ground squirrel and San Joaquin kit fox.

An information center search (Class I) for the potential interconnection routes is being submitted to the CEC under confidential cover. The non-confidential portions of that report are provided at the end of this section.

**CULTURAL RESOURCES RECORDS SEARCH RESULTS FOR THE
PROPOSED RIDGECREST SOLAR POWER PROJECT
TRANSMISSION LINE INTERCONNECTION
TO INYOKERN SUBSTATION
KERN COUNTY, CALIFORNIA**

DR-ALT-48

Prepared for:

Ridgecrest Solar I, LLC

Prepared by:

AECOM
1420 Kettner Boulevard, Suite 500
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February 2010

Non-Confidential Portion

*Confidential Information Bound
and
Submitted Separately*

INTERCONNECTION ROUTE

Information regarding previously conducted studies and site records was obtained for a one-mile area around the Proposed Ridgecrest Solar Power Project (RSPP) Transmission Line Interconnection to Inyokern Substation. Archival research was conducted to determine if any previous surveys have been conducted within the limits of or near the interconnection route.

The results of two record searches were used in this analysis. The first records search was submitted to SSJVIC at California State University, Bakersfield on February 13, 2009 and results were received on April 20, 2009. A supplemental records search was conducted by AECOM on January 15, 2010 to cover additional areas of the one-mile radius around the interconnection route. Additionally, resources recorded as part of the Class III survey report for the RSPP are included in this analysis (Jordan 2009).

The records and literature search results indicated that 27 previous investigations had been conducted within the records search area (Table 1). All but two of the studies were conducted more than five years ago. Eleven of studies (KE-00572, KE-00567, KE-00733, KE-01828, KE-02016, KE-02054, KE-02188, KE-02553, KE-02862, KE-02900, KE-03497) cover a portion of the interconnection route. KE-02016 consists of a Class III inventory conducted by Southern California Edison for the proposed stringing of the existing Inyokern-Kramer 115 kV and 220 kV transmission line. This study is parallel to the interconnection route and covers a major portion of the route. KE-02016 identified one lithic scatter within the APE, recorded as isolate feature IF-KER-435. KE-02188 and KE-02553 consist, respectively, of an original linear survey and a resurvey of sections of the Lone Pine Branch of the Mojave-Owenyo rail alignment, a portion of which runs through the western edge of the APE. These studies recorded and updated this segment of the rail alignment and its associated features (CA-KE-3366H). Negative Archaeological Survey reports were completed on studies KE-00567 and KE-00733, and KE-00572 consists of a Negative Archaeological Survey report on the linear survey for the proposed rehabilitation of Highway 395. KE-02862 and KE-03497 consist of the Archaeological Survey Report and Historic Properties Survey Report related to the expansion of Highway 395; no sites were recorded within the APE as part of these two studies.

Table 1. Summary of Previous Surveys within Records Search Limits

Report Number KE-	Date	Author	Title
00532	1978	Jelinek, James, and Daniel L. Young	Historical Properties Survey Report
01828	1978	Young, Daniel	Archaeological Survey Report for Highway Improvement Projects between China Lake Boulevard (Ridgecrest) and Highway 395
00424	1983	Garfinkle, Alan P.	Archaeological Survey Report for a Proposed Sale of an Excess Parcel on 09-KER-395, Kern County, California

Report Number KE-	Date	Author	Title
00576	1985	Lerch, Michael K.	Archaeological Survey Report for a Proposed Sale of an Excess Parcel on 09-KER-395, Kern County, California
00634	1985	Macko, Michael E. and Jill Wiesbord	Sylmar Expansion Project Cultural Resources Inventory and Significance Evaluation, Final Report, Volume 1
00567	1986	Lawson, Jan B. and Clifton E. Lawson	Report of Archaeological Survey for James H. Pappe
00306	1987	Brock, James, and John F. Elliott	A Cultural Resources Assessment of the Indian Wells Valley Water District Southwest Well Field and Transmission System
00568	1987	Lawson, Jan B. and Clifton E. Lawson	Report of Archaeological Survey for Ethel M. Burge
01094	1989	Pruett, Catherine L.	Environmental Impact Evaluation: Archaeological Evaluation for 80 Acres South of Inyokern, Kern County.
01543	1989	Smith, Barbara	Report of Archaeological Survey for Ed Lecky
01868	1989	Oxendine, Joan	Cultural Resources Report for the Contel Fiber Optic Cable Ridgecrest Resource Area.
02016	1989	Taylor, Thomas T.	Archaeological Survey Report Inyokern-Kramer 220 kV Transmission Line Conductoring Project Tower Sites, Pulling Areas, Sleeve Areas, and Wire Setups Kern and San Bernardino Counties, California.
00309	1990	Burton, Jeffery F	An Archaeological Survey of the Contel Bishop to Inyokern Fiber Optics Line, Inyo and Kern Counties, California
00733	1990	Norwood, Richard H.	Cultural Resource Survey for Tentative Parcel Map No. 9457 20 Acres in Inyokern, Kern County, California
00948	1990	Pruett, Catherine L.	Archaeological Evaluation for a Road Right-of-Way across BLM and South of Inyokern, Kern County.
02188	1992	Hall, M.C.	Cultural Resources Survey of a Portion of the Former Southern Pacific Mojave-Owenyo Branch Railroad, Inyo and Kern Counties, California.
00289	1993	Berg, John E.	A Technical Report of a Cultural Resources Survey and Inventory for the Mojave Pipeline/Coso Lateral.
00040	1995	Laylander, Don	Archaeological Survey Report for the West Bowman Road Excess Parcels near Inyokern, Kern County, California
00047	1995	Laylander, Don	Negative Archaeological Survey Report
00572	1995	Laylander, Don	Negative Archaeological Survey Report U.S. 395 P.M. 15.0/29.3.
02054	1997	Love, Bruce, and Bai Tom Tang	Water Systems General Plan Indian Wells Valley Water District Kern and San Bernadine Counties, California

Report Number KE-	Date	Author	Title
02553	1998	Burke, Thomas D.	Re-Examination of Previously Documented Cultural Resources on the Union Pacific Railroad Lone Pine Branch, M.P. 4300.00 Series to M.P. 519.34 Near Lone Pine, on Public Lands Administered by the Bureau of Land Management, Ridgecrest Field Office.
02736	1999	Abeyta, Daniel	Demolition of 18 Miles of Abandoned Railroad Track, Naval Air Weapons Station, China Lake, Kern, County
02862	2003	Wickstrom, Brian	Archaeological Survey Report for the Inyokern Four Lane Project, Kern County, California.
02900	2004	Darcangelo, Michael, William R. Hildebrandt, and Jerome King	Archaeological Survey of the Southern and Western Portions of the Security Perimeter Fence Line, Naval Air Weapons Station, China Lake
03497	2006	Wickstrom, Brian and Lance H. Brangham	Historic Properties Survey Report for the Inyokern Four Lane Project Kern County, California.
03574	2006	Switalski, Hubert	Archaeological Investigations for Southern California's Edison Proposed Overhead Line Removal and the Installation of an Underground Conduit, Inyokern, Kern County, California

The SJJVIC records search results indicated 24 resources within the one-mile records search area. An additional 36 resources were recorded during the 2009 survey (Table 2). Not included are the isolates from the 2009 survey. Three of these previously documented cultural resources and two resources recorded during the 2009 survey are within or immediately adjacent to the interconnection route. These consist of a segment of the Southern Pacific Railroad (SPRR) alignment (P-15-3366), two lithic tools (P-15-008757 and P-15-008758), a historic tin can scatter (R-S-866), and a debris scatter (CA-KER-6837H, Locus 1) located adjacent to an abandoned segment of Old Highway 395 (P-15-12070). The debris scatter is located in the southern corner of the project area with the segment of the SPRR located to the south. Cultural resources within the records search buffer area include lithic and groundstone scatters, lithic isolates including projectile points and a shell bead, milling features, rock shelters, petroglyphs, historic road alignments, a wagon trail and historic debris scatters.

Table 2. Summary of Previously Recorded Cultural Resources within the Records Search Area

Primary Number (P-15-)	Permanent Trinomial (CA-KER-)	Site Type	Date Recorded
003366	3366H	Railway alignment - Segment of the Southern Pacific Mojave-Oweno Railroad Line into Inyo County (CA-INY-4608H)	

Primary Number (P- 15-)	Permanent Trinomial (CA-KER-)	Site Type	Date Recorded
012070	6837H	Old Highway 395 alignment and associated historic debris	
008676		Last Chance Canyon Archaeological District (Prehistoric campsites, house-ring complexes, rockshelters, lithic and groundstone material, petroglyph sites, and burials; unidentified historic period (1870s) sites)	
008711	800	Milling feature (Unifacially ground, basalt milling slab)	
001671		Lithic scatter	1983, 1992, 2002
008705		Isolate flake	1987
008706		Isolate flake	1987
008707		Shell bead	1987
008708		Isolate flake	1987
008757		Isolate projectile point	1986
008758		Isolate flake	1989
010818		Lithic scatter	2003
010819		Lithic scatter	2003
010820		Isolate flake	2002
010821		Isolate flake	2002
010823		Isolate flake	2002
010824		Isolate biface	2003
010825		Isolate projectile point	2003
010826		Isolate flake	2003
010827		Isolate flake	2003
012543		Wagon trail	2004
R-S-001b		Tin can scatter	2009
R-S-001c		Tin can scatter	2009
R-S-005b		Historic debris scatter (cans, car parts, milled wood)	2009
R-S-006		Rock-lined historic roadbed	2009
R-S-008		Claim post and can scatter	2009
R-S-010		Claim post/rock pile feature	2009
R-S-011		Claim post/rock pile feature	2009
R-S-015		Tin can scatter	2009
R-S-18/19		Tin can scatter	2009
R-S-019c		Metate milling feature and CCS biface	2009
R-S-023		Claim post feature	2009
R-S-032		Tin can scatter	2009

Primary Number (P-15-)	Permanent Trinomial (CA-KER-)	Site Type	Date Recorded
R-S-035		Historic debris scatter (cans, milled wood, ceramic and glass fragments)	2009
R-S-037		Tin Can and glass scatter	2009
R-S-038		Tin can scatter	2009
R-S-039b		Tin can scatter	2009
R-S-040b		Tin can scatter	2009
R-S-042		Tin can scatter	2009
R-S-153		Tin can scatter with and wood	2009
R-S-157		Tin can scatter	2009
R-S-158		Tin can scatter	2009
R-S-159		Tin can scatter	2009
R-S-161		Tin can scatter	2009
R-S-603		Tin can scatter	2009
R-S-604		Whole metate and metate fragment	2009
R-S-617		Mano cache	2009
R-S-700		Tin cans and glass fragments	2009
R-S-720		Groundstone scatter (mano and metate fragments)	2009
R-S-773		Tin can scatter	2009
R-S-780		Depressed roadbed alignment with side berms	2009
R-S-781		Tin can scatter	2009
R-S-853		Tin can scatter	2009
R-S-856		Tin can scatter	2009
R-S-866		Tin can scatter	2009
R-S-868		Historic road alignment	2009

The eastern boundary of National Register-listed Last Chance Canyon Archaeological District, P-15-008676, crosses over the southern end of the APE. The limited information available from SJJVIC consists of the National Register of Historic Places Inventory – Nomination Form, a small scale map copied over 8½-inch-by-11-inch sheets showing the rectangular boundary of the district, two pages of unlabelled photographs, and one 8½-inch-by-11-inch copy of the northern portion of the Inyokern 15' quadrangle showing a handwritten legend of site symbols but showing neither the boundary of the district nor the location of any recorded sites. The National Register nomination form and accompanying maps were completed by Alex Apostolides in 1971 following the UCLA Archaeological Survey conducted between 1962 and 1970. The district is described as encompassing Townships 27S, 28S, and 29S and Ranges 37E, 38E, and 39E on the 1943 Saltdale and Inyokern 15' USGS quadrangles. As mapped, the district currently covers approximately one-third of the western portion of the APE. According to available records, there

exists no list of the individual sites that were nominated to the NRHP. BLM Archaeologist Don Storm has organized available data regarding the district and has compiled a list of 79 sites, most of which have never received trinomial numbers and all of which are far to the southwest from the APE (Don Storm, personal communication, April 8, 2009). Cultural resources within the district include both historic and prehistoric sites, including rock shelters, campsites, milling features and groundstone, house-rings, rock art, workshop areas/digging stations, and two burials. Occupation evidence is believed to date to as early as 400 B.P., with one obsidian projectile point yielding a hydration date of 3980 B.P.

Summary

Between the Taylor 1989 (KE-02016) survey and RSPP (Jordan 2009) Class III survey, there is adequate survey coverage to assess the impact the proposed Transmission Line Interconnection to Inyokern Substation would have on cultural resources. KE-02016, covering the APE of the now existing transmission line that the interconnection route would parallel, identified only a single isolate feature. Only three resources were identified or updated during the RSPP Class III survey within or near the interconnection route. In addition to these three resources, only two other resources have been identified within or near the interconnection route. Although additional cultural resources may be identified with a Class III survey, there are five known cultural resources that would be potentially impacted by the interconnection route.

References

Jordan, Stacey C. 2009. Cultural Resources Class III Report for the Proposed Ridgecrest Solar Power Project, Kern County, California. Prepared by EDAW, Inc. for AECOM Environment, Solar Millennium, LLC, California Energy Commission, and U.S. Department of the Interior, Bureau of Land Management.