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UTILITY CONSUMERS' ACTION NETWORK

3100 Fifth Ave. Suite B, San Diego, CA 92103

Tel: (619) 696-6966 Fax: (619) 696-7477

Web: www.ucan.org e-mail: mshames@ucan.org

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Susan Lee
Vice President, SF Office
Aspen Environmental Group
235 Montgomery Street #935
San Francisco, CA 94104

Billie Blanchard
Public Utilities Commission
505 Van Ness Ave.
San Francisco, CA 94012

Subject: A.06-08-010; Utility Consumers' Action Network (UCAN) Comments on Sunrise Powerlink DEIR

DELIVERED VIA E-MAIL

Dear Susan & Billie,

Pursuant to the request made of UCAN by ALJ Weissman, accompanying this letter is a modified set of comments that specifically reference DEIR pages and assertions. A table of contents can be found at the end of the document. I trust that this modified set of comments will be of greater use to you in your EIR process. Please contact myself or David Marcus if you have any questions about the above.

Very truly yours,

Michael Shames

Michael Shames

IV. DEIR alternative 4 -- UCAN proposes a modification to this alternative which is on cost grounds, equal with regard to reliability, and superior environmentally

The DEIR presents a specific Southern Route (ESSRA) identified as DEIR Alternative 4. UCAN has looked at the alternative routes described in the DEIR and believes that it hasn't considered a variation on this alternative which would meet SDG&E's likely objections to the Environmentally Superior Southern Route while having fewer environmental impacts than the proposed project, lower cost than the proposed project, and be feasible to construct. The "UCAN route" is quite a few miles shorter than the ESSRA (DEIR alternative 4), and thus should be quite a bit cheaper.¹⁷²

UCAN's specific Southern Route alternative is described below and should be used as the benchmark against which SDG&E's Preferred Route is measured. UCAN offers this alternative largely to demonstrate in very graphic terms that SDG&E's selection of its proposed route was not a considered and thoughtful selection.

UCAN also believes that the DEIR should give greater weight to the No-Option alternative contained in the DEIR; an alternative that is largely consistent with UCAN's Phase I alternative. It remains the most environmental superior and cost-effective option presented to the Commission in either phase of this proceeding.

A. Route selection criteria

1. Avoid southernmost part of modified D option because of potential reliability argument – too close (< 4 miles) to SWPL in area burned in 10/07 fires

In response to the DEIR's ESSRA, UCAN expects SDG&E to argue that the Modified D route is unacceptable because it would pass too close to the SWPL route and pose a risk of an N-2 contingency from fire. Building upon the DEIR's analysis, UCAN has identified a route whose projected burn zone after a fire near the route would not include the SWPL ROW and therefore not trigger SDG&E's objections.

2. Avoid I-8 route through Buckman Springs area

a. For the same reasons the "Environmentally preferred Southern Route" does – avoids competing uses and the "scenic Cottonwood Valley along I-8."

¹⁷² UCAN, 3/12 opening Phase 2 testimony.

The DEIR endorses the Modified Route D route in part because it avoids the “scenic Cottonwood Valley” along I-8 as well as competing recreational uses such as hang gliding in the Buckman Springs area. UCAN identified a route which would also avoid the Buckman Springs area.

b. To avoid crossing Indian lands

At the 2/25/08 all-party meeting with Commissioner Grueneich, SDG&E indicated that it thought the I-8 route would be infeasible because it passes through Indian lands, and the Campo Indians have recently expressed their opposition to a line across their land. UCAN identified a route which did not pass through any Indian lands and thus would not be subject to veto by a third party.¹⁷³

The DEIR says that the I-8 route right-of-way (RoW) , which would also be used by the UCAN route, would cross .02 miles of the Viejas reservation, or about 100 feet.¹⁷⁴ SDG&E has asserted in CPUC testimony that the I-8 route RoW would cover 0.26 acre of land owned by the Viejas Tribe, and concludes that the I-8 route is therefore “infeasible.”¹⁷⁵ However, Attachment 10-8 in its testimony shows that moving one tower 125’ would get the entire I-8 RoW out of the Viejas reservation, as already pointed out in UCAN’s opening Phase 2 testimony. SDG&E has now conceded that it believes the I-8 route can be relocated to avoid the Viejas reservation, at a “negligible” cost.¹⁷⁶ Thus the UCAN route would still be feasible.

3. Minimize underground mileage – to reduce costs

As discussed above, SDG&E estimated in Phase I that underground 230 kV lines would cost about \$20 million per circuit mile. In addition, the DEIR indicates that underground 500 kV lines may not be feasible at all, at least not for any sustained distance.¹⁷⁷ UCAN looked for a route in which any underground sections were as far west as possible (to allow more miles of 500 kV line and fewer miles of 230 kV line¹⁷⁸ and more siting options for the 500/230 kV substation) and as short as possible (to minimize costs).

¹⁷³ SDG&E asserts in its 3/7/08 response to UCAN DR26-1 that the “UCAN route” would cross “a corner of the Viejas Indian Reservation and includes an access road into the Reservation. See DEIR Fig. Ap. 11C-52. The project could not proceed on this route without the Viejas Tribe approval.” However, UCAN’s review of the cited DEIR figure does not show the route crossing any reservation lands. The figure does show access roads on reservation lands, but does not discuss whether alternative access road locations are possible, given that the transmission line itself, and all its tower pads, lie outside the reservation.

¹⁷⁴ DEIR, p. E.1.7.1.

¹⁷⁵ SDG&E, 3/12, p. 10.6.

¹⁷⁶ SDG&E, 3/26 response to UCAN DR38-3.

¹⁷⁷ The DEIR does describe the LEAPS transmission alternative as having a 1.7 mile section of underground 500 kV line.

¹⁷⁸ According to SDG&E, “ The high level design goal for the Sunrise Powerlink project is to bring a single 500 kV line as close to the SDG&E load center as is reasonably practicable, then to use 230 kV lines to distribute the power to major 230 kV load-serving substations within the San Diego load center.” SDG&E, 11/17/06, p. 8 of 17, response to ED DR set 1, DR ALT-20. UCAN sought (and found – see below) a Southern Route which would better meet this “high level design goal” than the proposed Central substation location.

4. Take account of future expandability issues

UCAN looked for a route which would allow future interconnections to SDG&E 230 kV substations other than Sycamore Canyon in as low cost and non-disruptive a manner as possible, consistent with SDG&E's "high level design goal" for the project.¹⁷⁹

In testimony filed at the CPUC, SDG&E says the DEIR fails to treat expandability (to interconnect with SCE) as a project objective¹⁸⁰. The interesting part of this assertion is that if the DEIR did analyze the SCE interconnection, the DEIR would have to address SDG&E's claim (p. 2.37) that crossing Indian lands is a fatal flaw, since the DEIR's route from SDG&E to SCE does so. And the DEIR would also have to address the fact that, according to Attachment 6-6, the Cleveland National Forest opposes mere consideration of the Full Loop option.

The Forest's position dooms the consideration of a Full Loop as infeasible and thus not a basis for choosing one route over another. SDG&E's position (that crossing Indian lands is infeasible) dooms the particular Full Loop route described in the DEIR. Thus, the DEIR did not err by failing to make expandability a necessary condition of all project alternatives – as asserted by SDG&E – for it would have had to find that expandability made the entirety of Sunrise infeasible. If anything, the DEIR erred in not explicitly precluding expandability on the basis that it would inevitably cross Indian-owned lands.

5. Avoids Cultural or Archeologically-Sensitive Habitat

SDG&E maintains that a "prehistoric Indian village" that would be affected by the I-8 route, and cites DEIR p. E.1.7-4 as the basis for its testimony. That page of the DEIR refers to site CA-SDI-6706 as both a "prehistoric village site" and a "prehistoric archaeological site." Elsewhere, the DEIR identifies site CA-SDI-6706 as being "along the Interstate 8 Alternative in Alpine Boulevard."¹⁸¹ The DEIR also confirms that the Star Valley Option in the ESSRA would avoid site CA-SDI-6706.¹⁸² This means that the portion of site CA-SDI-6706 subject to being affected by a new transmission line must be under the easternmost portion of Alpine Boulevard, the portion that would be bypassed by the Star Valley Option.

The "UCAN route" described in UCAN's opening Phase 2 testimony would also avoid the eastern part of Alpine Boulevard, and use the Star Valley Option. Thus the "UCAN route" would bypass site CA-SDI-6706 and SDG&E's objection does not apply to the UCAN route.

¹⁷⁹ Ibid.

¹⁸⁰ Ironically, SDG&E appears to be tacitly agreeing with Powers Engineering's Phase 2 testimony that the DEIR has failed to analyze the 500 kV line to SCE properly.

¹⁸¹ DEIR, p. H-105.

¹⁸² Ibid. SDG&E also admits that the ESSRA would not impact the cite. SDG&E, 3/12, p. 6.37.

B. UCAN's recommended southern route follows the I-8 alternative with two (or possibly three) deviations

Based on the above criteria, UCAN ruled out all Northern Routes (too long, too much undergrounding required to mitigate impacts), the Modified Route D alternative (too close to SWPL), the I-8 route between mileposts 43 and 57 (crosses two Indian reservations and requires undergrounding to mitigate impacts near Buckman Springs, and the I-8 route between mileposts 71 and 74 (avoidable undergrounding that increases costs unnecessarily). What was left was a Southern Route that:

1. Follows the I-8 route for the first 40 miles west from the Imperial Valley substation.
2. Follows the BCD route for 19 miles instead of the I-8 route between I-8 mileposts 40 and 58
3. Follows the I-8 route west for 13 miles from milepost 58 to milepost 71.
4. Follows the Modified Route D route south for 2 miles from Modified Route D milepost 36 to milepost 34, with a substation at the DEIR's Modified Route D substation site.
5. Follows the SVO (Star Valley Option) route for its 3 mile length.
6. Follows the I-8 route from milepost 74 on west to Sycamore Canyon.
7. If appropriate, follows CC alternative between I-8 mileposts 80 and 82.
8. Uses the RPCC alternative to avoid any further new transmission line construction west of Sycamore Canyon substation, as in the DEIR's Environmentally Superior Southern and Northern Routes.

C. The "UCAN" route is electrically equivalent to the proposed route

In response to a DRA data request, SDG&E has indicated that it believes both Southern and Northern Routes are equivalent to the proposed Sunrise route in terms of their impact on the SDG&E's system to import electricity under both N-0 and N-1 conditions.¹⁸³ The "UCAN route" is the same as the Environmentally Superior Southern Route for the first 40 miles and the last 27 miles, and has its 500/230 kV substation in the same place. The middle section of the "UCAN route" is shorter than the corresponding section of the Environmentally Superior

¹⁸³ SDG&E, 2/15/08 response to DRA data request 17-1a.

Southern Route (35 miles versus 43 miles).¹⁸⁴ Thus, in electrical terms, the “UCAN Route” should be very slightly superior to the Environmentally Superior Southern Route because of its shorter length and lower line losses.

D. The resulting “UCAN” route should be cheaper than the proposed route

Based on SDG&E’s Phase I cost estimates, the Environmentally Superior Southern Route would cost some \$60 million less than the proposed project, even if the proposed project were modified to use the RPCC-alternative for the Coastal Link.¹⁸⁵ Specifically, the Environmentally Superior Alternative would cost about \$22 million less than Sunrise (with the RPCC alternative) for 500 kV lines,¹⁸⁶ about \$73 million less than Sunrise for overhead 230 kV lines,¹⁸⁷ about \$68 million more than Sunrise for underground 230 kV lines,¹⁸⁸ and about \$33 million less than Sunrise for underground 69 kV and 92 kV lines.¹⁸⁹

The “UCAN route” would have the same 230 kV facilities and substation as the Environmentally Superior Southern Route, but about 8 miles fewer of 500 kV line.¹⁹⁰ Using SDG&E’s Phase I cost estimates, that would make the “UCAN Route” some \$22 million cheaper than the Environmentally Superior Southern Route,¹⁹¹ and thus \$82 million cheaper than the proposed route,¹⁹² even if the proposed route were modified to use the cost-saving RPCC alternative¹⁹³ and had no extra mitigation costs. Compared to SDG&E’s Phase I proposal with a

¹⁸⁴ See Figure ES-17 on p. ES-57 of the DEIR.

¹⁸⁵ The RPCC Alternative, which is part of the Environmentally Superior Northern and Southern Alternatives, eliminates all transmission lines west of Sycamore Canyon substation.

¹⁸⁶ Ex. SD-6, table following p. V-14, pp. 3-4 of 4, showing 500 kV costs of \$155.975 million for the 84 miles of “Desert Link” line, plus 50.7 percent for contingency, AFUDC, and escalation, for a total of \$2.8 million/mile. $8 \times \$2.8 = \22.4 million.

¹⁸⁷ Ex. SD-6, table following p. V-14, pp. 3-4 of 4, showing 230 kV costs of \$50.775 million for the 21 miles of “Inland Valley” 230 kV line, plus 50.7 percent for contingency, AFUDC, and escalation, for a total of \$76.5 million. $\$76.5 \times 20/21 = \72.9 million.

¹⁸⁸ 5.9 miles of Southern Route underground double-circuit 230 kV line (DEIR, p. ES-4) vs. 4.2 miles of Sunrise project double-circuit underground line east of Sycamore valley (DEIR, p. ES-11), at \$20 million/circuit-mile. Note that if the RPCC Alternative were not adopted, the Sunrise alternative would also include over \$96 million for underground 230 kV line in the “Coastal Link” settlement (Ex. SD-6, table following p. V-14, pp. 2 and 4 of 4, showing underground 230 kV costs of \$63.983 million for the “Coastal Link” 230 kV line, plus 50.7 percent for contingency, AFUDC, and escalation, for a total of \$96.4 million).

¹⁸⁹ Ex. SD-6, table following p. V-14, pp. 1-2 and 4 of 4, showing underground 69 and 92 kV costs of \$22.092 million in ABDSP, plus 50.7 percent for contingency, AFUDC, and escalation, for a total of \$33.3 million.

¹⁹⁰ See Figure ES-17 on p. ES-57 of the DEIR.

¹⁹¹ Ex. SD-6, table following p. V-14, pp. 3-4 of 4, showing 500 kV costs of \$155.975 million for the 84 miles of “Desert Link” line, plus 50.7 percent for contingency, AFUDC, and escalation, for a total of \$2.8 million/mile. $8 \times \$2.8 = \22.4 million.

¹⁹² “UCAN route” is \$22 million less than the Environmentally Superior Southern Route, which in turn is \$60 million cheaper than the proposed route with the RPCC alternative. $\$60 + \$22 = \$82$ million.

¹⁹³ As discussed in the RPCC Phase I brief, the RPCC alternative west of Sycamore Canyon substation would save tens of millions of dollars compared to the SDG&E proposal, and quite possibly more than \$100 million. SDG&E’s preliminary numbers provided in response to UCAN DR35-12 suggest that the RPCC route would be at least \$77

Sycamore Canyon-Penasquitos 230 kV line, and assuming mitigation costs similar to those estimated by SDG&E for the Environmentally Superior Southern Route,¹⁹⁴ the “UCAN route” would be \$211 million cheaper than SDG&E’s proposed Sunrise route.¹⁹⁵

E. The resulting route has expansion options that SDG&E’s Sunrise route lacks

1. Close to Mexican and eastern San Diego County wind resources

The “UCAN route” would pass directly by the proposed site for the Jacumba 500 kV substation to interconnect Sempra Generation windpower from Mexico.¹⁹⁶ It would pass directly by the Jacumba 230/500 kV substation site identified in the DEIR.¹⁹⁷ It would pass approximately one mile from the existing Boulevard 69 kV substation,¹⁹⁸ a likely collection point for San Diego County wind generation. Thus, unlike the proposed route and all other Northern Routes, the “UCAN route” would be ideally placed for interconnection of future Mexican and San Diego County wind resources.

2. 230 KV lines pass near (2 miles) Los Coches substation, a likely future 230 kV substation as SDG&E expands its internal grid.

SDG&E’s Los Coches substation is located on the west side of Lake Jennings in Lakeside, approximately two miles south of milepost 87 on the I-8 route.¹⁹⁹ Los Coches is currently a 69 kV and 138 kV substation, but has been suggested in the past as a potential 230 kV substation to

million cheaper than SDG&E’s own Coastal Link proposal, as calculated in a footnote above. If any new line to Sycamore Canyon from the east is going to be built, UCAN would certainly support the RPCC alternative over the SDG&E proposal for a new line west of Sycamore Canyon.

¹⁹⁴ The “UCAN route” would be identical to the Environmentally Superior Southern Route for 67 miles of its 102 mile total length, and would have the same substation site. The part of the “UCAN route” which deviates from the Environmentally Superior Southern Route would be shorter (35 miles versus 43 miles). It is thus reasonable to expect the environmental mitigation costs for the two routes to be similar.

¹⁹⁵ \$82 million cheaper based on shorter line length east of Sycamore Canyon and SDG&E’s Phase I estimates of cost per mile; \$77 million cheaper based on RPCC alternative instead of SDG&E’s proposed Sycamore Canyon-Penasquitos Coastal Link; \$52 million cheaper based on lower mitigation costs. \$82 + \$77 + \$52 = \$211 million.

¹⁹⁶ See Sempra Generation Presidential Permit Application, 12/18/07, showing the proposed 500 kV substation immediately west of the San Diego/Imperial County border, at about milepost 30 of the I-8 route (as shown on DEIR Figure ES-17, p. ES-57.

¹⁹⁷ At milepost 35 of the I-8 route.

¹⁹⁸ See DEIR, Figure ES-17 on p. ES-57, showing BCD route milepost 0.0 approximately 1 mile from the Boulevard substation.

¹⁹⁹ See DEIR, Figures D.1-13, E.1.1-2d.

interconnect wind generation to the SDG&E grid. The DEIR appropriately identifies Los Coches as a prospective future 230 kV substation.²⁰⁰ Four existing 230 kV lines already pass right by Los Coches substation (and within one mile of the “UCAN route between I-8 route mileposts 87 and 88): The Otay Mesa-Sycamore line, the Miguel-Sycamore line, and the Miguel-Mission #1 and #2 lines.²⁰¹

Building the “UCAN route” (or the I-8 route, or the Environmentally Superior Southern Route) would allow for future expansion of the SDG&E grid by looping one of the proposed 230 kV lines south for two miles into Los Coches, following the existing Creelman-Los Coches 69 kV ROW. This would be far less environmentally disruptive than the 230 kV system expansion to Los Coches shown in the DEIR for the proposed project, which requires a 40.5 mile long 230 kV line from Central to Los Coches, passing through the Barona Indian Reservation.²⁰² Even if the future expansion involved a new (third) 230 kV line from the “Modified Route D Substation” to Los Coches, that would still be only an 18 mile long line, not the 40.5 miles required for a third 230 kV line out of the Central substation.²⁰³

Curiously enough, while the DEIR identifies future expansion options for the proposed project which include new 230 kV lines from Central to Escondido, Penasquitos, Sycamore Canyon, and Los Coches, it only describes expansion to Escondido for the Southern Route.²⁰⁴ The DEIR thus substantially understates the future expandability of Southern Routes in general, and the “UCAN route” in particular.

²⁰⁰ DEIR, pp. B-24., B-27, B-28, B-29.

²⁰¹ See DEIR, Figure D.1-13 showing physical line locations parallel to and south of the I-8 route between mileposts 87 and 88. See <http://www.caiso.com/1c9b/1c9bd50412490.pdf>, p. 20 of 39, for an 11/20/07 ISO presentation showing the SDG&E system schematically. The Los Coches substation is shown on the ISO schematic as the “LC” substation on the right side of the page, south of the Sycamore substation and west of the Carlton Hills (“CH”) substation

²⁰² DEIR, Figure B-12a on p. B-29. SDG&E has preliminarily asserted that construction of more than two underground 230 kV lines under Alpine Boulevard would not be feasible (SDG&E, 3/7/08 response to UCAN DR36-1), but even if this assertion turns out to be true, the ability to loop the initial two 230 kV lines into a future Los Coches 230 kV substation will meet the expandability goal of using the new 500 kV line to feed more than one 230 kV substation on the SDG&E system.

²⁰³ The distances from the “Utah route” substation to other SDG&E 230 kV substations besides Los Coches would also be shorter than the corresponding distances from SDG&E’s proposed Central substation. According to the DEIR, new 230 kV lines from Central to Mission would have to be 57 miles long, from Central to Penasquitos would be 58 miles, from Central to Sycamore Canyon would be 45 miles, and from Central to Escondido would be 64 miles by the Southern Route (the Northern Route would be “only” 47 miles but would require crossing two different Indian Reservations. See the DEIR, Figure B-12a, and text on the preceding page B-28.

²⁰⁴ DEIR, pp. E.1.1.-7 and -8. The DEIR fails to describe the option of future expansion to Los Coches for the Southern Route, even though most Southern Routes (including the I-8 route, the “UCAN route” and the Environmentally Superior Southern Route) pass within two miles of Los Coches substation.

F. Potential for delay

The “UCAN route” would require a CNF plan amendment because it crosses the PCT and crosses 4.1 miles of BCNM land.²⁰⁵ However, February 25, 2008 statements by State Parks and Recreation’s counsel indicated that the Northern Route would also require a Plan amendment. Generally, the BCD alternative crosses the second-least amount of CNF lands of any Southern Route.²⁰⁶ Thus, the “UCAN route” should not require any more licensing time than a comparable Northern Route, as proposed by SDG&E.

G. The BCD portion of the “UCAN route” offers some measure of fire protection

Under Santa Ana wind conditions, a fire along the BCD portion of the UCAN alternative would tend to burn southwest towards I-8, which would act as a natural firebreak, limiting the maximum area at risk to under 50,000 acres and only 16 structures.²⁰⁷ The fire risk along the BCD section (as shown in the DEIR) is considerably lower than along the Modified D portion of the Southern Route, and does not include any risk of a fire along the BCD route spreading into the SWPL right-of-way.²⁰⁸

H. Overall environmental comparison to the Sunrise proposal

The “UCAN route” has a comparable number of unmitigable Class I impacts to the Modified D route, and 10 percent fewer Class I impacts than the I-8 route section it would bypass.²⁰⁹ It has substantially fewer unmitigable Class I impacts than the 50 associated with SDG&E’s proposed route.²¹⁰ Also, if the Campo reservation cannot be crossed, the BCD route

²⁰⁵ DEIR, pp. D.17-6 (plan amendments required for various alternative routes) and D.17-14 (mileage of CNF land types crossed by alternative routes). SDG&E has preliminarily identified this as a possible reason for the “UCAN route” to be infeasible (SDG&E, 3/7/08 response to UCAN DR36-1), but requiring a plan amendment is not a fatal flaw for a route (or else the proposed route through ABDSP would also be infeasible).

²⁰⁶ DEIR, p. D.17-14.

²⁰⁷ DEIR, pp. E.2.15-8 to -10; proposed mitigation would further reduce the area and structures at risk to under 10,000 acres and zero structures.

²⁰⁸ DEIR, p. E.4.15-10. SDG&E has identified fire risk in the Cleveland National Forest as a potential reason for the “UCAN route” to be infeasible (SDG&E, 3/7/08 response to UCAN DR36-1), but has not (at least to date) acknowledged the lower fire risk from the BCD route as compared to routes south of I-8.

²⁰⁹ 24 vs. 27; DEIR, p. H-92.

²¹⁰ DEIR, p. ES-4.

becomes the only feasible Southern Route, but it is feasible and meets all project objectives.²¹¹ The “UCAN route” is shorter than the proposed project, and avoids “numerous direct impacts within Anza-Borrego Desert State park including de-designation of state wilderness, degradation of views and recreational opportunities, and impacts on Traditional Cultural Properties.”²¹² The “UCAN route” also avoids “severe visual impacts in Santa Ysabel Valley.”²¹³ It is environmentally superior to the proposed project, which should therefore be rejected.²¹⁴

²¹¹ DEIR, p. H-94.

²¹² DEIR, p. ES-4.

²¹³ Ibid.

²¹⁴ Besides other objections to the feasibility of the “UCAN route” (in its 3/7/08 response to UCAN DR36-1; see discussion and footnotes in sections IV.E, F, and G, above), SDG&E has also suggested that the “UCAN route” may be environmentally infeasible because “a large habitation site has been mapped in the Alpine area that could be significantly impacted by the same undergrounding proposed by Aspen’s Southern Route.” SDG&E, 3/7/08 response to UCAN DR36-1. SDG&E does not identify the location of site CA-SDI-1706, and the only identification of the location of this site in the DEIR describes it as being along the underground portion of the I-8 route (i.e., under Alpine Boulevard). DEIR, Appendix 9B, Table Ap. 9B-85, with the “significant” impact being the presence of human remains. But the “UCAN route” bypasses the easternmost several miles of the I-8 route underground section, so it is not even certain that the UCAN route would pass through the site referenced by SDG&E. In any case, as indicated above in the discussion of the Stirling project, the Stirling project site and the Sunrise route would each also affect sites containing human remains, so doing so is clearly not a fatal flaw.

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