

Comment Set B01
Snow Creek Homeowners Association

DPV2 Colorado River Substation Expansion Project Supplemental EIR Team

From: SNOWCREEKPRES@aol.com
Sent: Thursday, March 03, 2011 6:05 PM
To: dpv2@aspeneg.com
Subject: Mt San Jacinto/ Snow Creek

Has the section of Devers Palo Verde Powerline Alternative 2 that traverses Mt. San Jacinto in Whitewater Ca 92282 been approved? I am the president of the Snow Creek HOA, and many of our members are concerned about this, as we fear that this power line will lead to the treat of industrial wind energy development in our area. Any information you could provide would be greatly apreciated.

B01-1

Les Starks

Responses to Comment Set B01

Snow Creek Homeowners Association

B01-1 The commenter asked whether the section of the Devers–Palo Verde No. 2 (DPV2) Transmission Line traversing Mt. San Jacinto has been approved. An email response was sent to the commenter on March 7, 2011. As stated in the email, the DPV2 Transmission Line Project, including the portion of the route that traverses Mt. San Jacinto in Whitewater, was approved by the CPUC in November 2009. Construction on the project has not yet started, but it is expected to begin in late 2011. The CPUC’s project website will provide updates on the project activity and mitigation monitoring during construction. See <http://www.cpuc.ca.gov/Environment/info/asp/dpv2/dpv2.htm> for more information.

The commenter’s concerns about construction of the DPV2 Transmission Line leading to wind energy development in the area are noted. The project analyzed in the Final Supplemental EIR is the expansion of the Colorado River Substation, proposed by SCE as a result of the recent approval of two solar power projects (the Blythe Solar Power Project and the Genesis Solar Energy Project) which have requested interconnection to the electricity grid at the CRS location. As discussed in Sections A.1.1 (Project Background) and A.1.3 (Project Objectives) in the Final Supplemental EIR, the DPV2 Project, including the CRS expansion, would bring energy resources to Los Angeles from Riverside County by providing access to remote areas with the potential for significant development of renewable energy sources.

Because power could be transmitted over the existing transmissions lines also (DPV1 and Devers-Valley No. 1), and information on capacity on those existing lines is not publicly available, it is not possible to definitively estimate transmission capacity. However, construction of the two solar projects that would interconnect at the Colorado River Substation and are considered to be connected actions to the CRS Expansion (BSPP and GSEP) would add 1,250 MW alone, so it is unlikely that there would be much additional capacity on DPV2 (Colorado River Substation to Devers Substation and Devers Substation to Valley Substation) to accommodate other renewable projects, such as potential wind development in the Whitewater area. Therefore, analysis of such development would be speculative at this time.

Comment Set B02 Basin and Range Watch

April 7th, 2011

To: Billie Blanchard

Aspen Environmental Group

235 Montgomery Street, Suite 935

San Francisco, CA 94104-3002

dpv2@aspeneq.com

To Whom it May Concern,

Please accept these comments on the Devers-Palo Verde No. 2 Transmission Project Draft Supplemental Environmental Impact Report.

Basin and Range Watch is a group of volunteers who live in the deserts of Nevada and California, working to stop the destruction of our desert homeland. Industrial renewable energy companies are seeking to develop millions of acres of unspoiled habitat in our region. Our goal is to identify the problems of energy sprawl and find solutions that will preserve our natural ecosystems and open spaces.

Proposed Action and Alternatives:

The proposed action is set to help the state of California reach its renewable energy goals and complete the substation connection to interconnect with the tie line for two major approved solar power projects by interconnection agreement target dates. By this time, most target dates have been delayed by permitting and financing problems. Permitting and environmental issues are preventing construction in Arizona. It would appear that this project is being expedited to meet financing goals of energy developers at the expense of the natural and cultural resources in the region.

Every alternative provided in the EIR with the exception of the No Action Alternative would have major direct and/or cumulative impacts on biological resources, cultural resources, water resources and visual resources.

Biological Resources:

Mojave fringe-toad lizard:

Basin and Range watch provided scoping comments concerning loss of habitat and sand transport corridors for the Mojave fringe-toed lizard (*Uma scoparia*)

B02-1

Comment Set B02, cont. Basin and Range Watch

The EIR states that “construction of the proposed, expanded CRS would cause a reduction of sand transported to 1,365 acres downwind of the proposed project area.” and “the resultant deflation would ultimately remove 1,365 acres of MFTL dune habitat.”

B02-1 cont.

Other issues are the spread of invasive weeds and transmission structures attracting subsidized predators such as ravens.

B02-2

The California Energy Commission has determined that the full development of energy sprawl just in the Chuckwalla Valley region would result in the elimination of 17 percent of all habitat for *Uma scoparia*. The construction and upgrade of new transmission to accommodate this kind of large energy sprawl could cumulatively lead to a Pandora’s Box of large energy projects that could ultimately contribute to large local extinctions of this species. *Uma scoparia* is a California Species of Special Concern. *Uma inornata* is currently listed as Threatened under the Endangered Species Act. The Center for Biological Diversity is petitioning to list the northern clade population of *Uma scoparia* under the Endangered Species Act. The large land rush of renewable projects could cause more potential listings of populations.

B02-3

Desert Tortoise:

It is no secret that construction and upgrade of transmission creates perches for ravens that prey on desert tortoise (*Gopherus agassizii*)

B02-4

The cumulative effects of predation due to upgrading of transmission in the region could impact populations of desert tortoise in the Chuckwalla Desert Wildlife Management Area/ Critical Habitat Unit.

B02-5

Water Resources:

If you do the math, you can figure out that this project will use over 300 acre feet of water for construction in the first 3 to 18 months. Again, the cumulative scenario needs to be considered. Even though both the Genesis and Blythe projects have gone dry cooled, they both will need 500 to 1,000 acre feet of water each plus hundreds of acre feet just for construction. The Genesis Project has litigation pending over water use. Solar Millennium, the builders of the Blythe Project have admitted that the project will have to be temporarily wet cooled during the hottest times of the year. According to the BLM Final EIS for Blythe, auxiliary cooling towers to remove heat from balance of plant would use 6,034 gallons per minute, for over 8,076 hours/year. Even dry cooled concentrated solar thermal plants are directly and cumulatively water intensive.

B02-6

Cultural Resources:

The EIR states that 11 cultural sites that are eligible for the National Register will be destroyed. The cumulative scenario of energy sprawl in the region would lead to the destruction of so many cultural resources that tribal elders from both the Chemehuevi and Ft. Mojave Tribe are referring to these plans as “cultural genocide”. The area is indeed rich in cultural resources. Nearly all of

B02-7

Comment Set B02, cont. Basin and Range Watch

the sites recorded as prehistoric have been described as having potential for subsurface manifestation. In addition to their individual research potential properties, the distribution of many of these sites in conjunction with other prehistoric sites recorded between Desert Center and Blythe may provide links between vestiges of the Coco-Maricopa trail system as well as clues to activities associated with transportation along that route. As such, these sites could be considered as part of a complex archaeological district that would include evidence of trade, travel, interaction among the several cultural groups associated with the area (Cahuilla, Chemehuevi, Mojave, Serrano), resource exploitation along travel routes, seasonality of habitation, and trail spurs between the primary coastal-interior route and the springs and associated rock art sites in the bordering mountain ranges.

B02-7 cont.

Visual Resources:

Basin and Range watch would like to request that the cumulative impacts of energy sprawl on visual resources be analyzed in the final document. Construction of large energy projects will impact view sheds from adjacent wilderness areas and highways. Damage to visual resources also has the potential to impact local economies that have potential for tourism.

B02-8

Conclusion:

Approval of this project will result in the loss of wildlife habitat and cultural resources on a direct and cumulative basis. It could also have cumulative impacts on both water resources and visual resources. The EIR has not provided an working alternative that will protect or mitigate these resources. At this point, Basin and Range Watch supports the No Action Alternative for this project.

B02-9

Thank you,

Kevin Emmerich

Laura Cunningham

Basin and Range watch

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Responses to Comment Set B02

Basin and Range Watch

- B02-1 The commenter referenced its scoping comments regarding loss of Mojave fringe-toed lizard (MFTL) habitat and impacts to the sand transport corridor. All scoping comments are included in Appendix 2 of the SEIR and the commenter's concerns are summarized in Section A.2.1 (Public Scoping for This SEIR) of the Supplemental EIR as well.
- Additionally, the commenter identified an excerpt of the Draft SEIR in which impacts to MFTL dune habitat are quantified. The commenter's scoping comments were considered in preparation of the Draft SEIR, as evidenced by the text excerpt provided in the Draft SEIR comment letter.
- B02-2 The commenter identified invasive weed proliferation and increased raven predation as potential issues resulting from construction of the CRS and associated transmission lines. Invasive weed proliferation and the resultant impacts to special-status plants, special-status wildlife, and sensitive habitats are analyzed in the Draft SEIR under Impact B-8 (Construction activities would result in indirect or direct loss of individuals and/or habitat for sensitive plants), Impact B-9 (Construction activities would result in indirect or direct loss of individuals and/or habitat for sensitive wildlife), and Impact B-18 (Construction activities would result in indirect or direct loss of a sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG, BLM, or USFWS), respectively.
- Impacts from increased raven predation are appropriately analyzed in Section D.2 (Impact B-16) of the DPV2 Final EIR/EIS (2006). Because impacts from the CRS would not be substantially different from those described in the original EIR/EIS, additional analysis is not warranted in this SEIR (refer also to General Response GR-2 regarding the scope of the biological resources analysis in the SEIR). The DPV2 Final EIR/EIS, as well as the Draft SEIR, can be accessed at <http://www.cpuc.ca.gov/Environment/info/aspen/dpv2/dpv2.htm>.
- Impacts resulting from construction and operation of the transmission lines that interconnect to the CRS from the Blythe Solar Power Plant (BSPP) and Genesis Solar Energy Project (GSEP) are analyzed in the California Energy Commission Staff Assessments for each of these projects, which can be accessed at <http://www.energy.ca.gov/sitingcases/alphabetical.html>.
- B02-3 The commenter references the Energy Commission's BSPP and GSEP cumulative impact analyses for MFTL (*Uma scoparia*), which identified a loss of 17 percent of MFTL habitat if all projects in the cumulative scenario are developed. The cumulative impact analysis in the Draft SEIR (Table C-3) is consistent with the Energy Commission's analysis and the commenter's statements. The Draft SEIR analysis recognizes the exacerbated threats from existing and future energy development in the Chuckwalla Valley, including CBD's recent petition to list the Amargosa River distinct population segment of MFTL under the Endangered Species Act (refer to Section E.3.1.1 of the Draft SEIR). Please also see Response to Comment B04-2 for additional discussion of cumulative impacts to MFTL.
- B02-4 Refer to Response to Comment B02-2 regarding analysis of impacts from increased raven predation.

B02-5 Cumulative impacts to desert tortoise from construction of and upgrades to transmission lines in the region are analyzed in the DPV2 Final EIR/EIS (2006); the CRS would not result in effects that are substantially more severe than identified in the DPV2 Final EIR/EIS (refer also to General Response GR-2 regarding the scope of the biological resources analysis in the SEIR).

B02-6 The commenter is correct in noting that construction of the Proposed Project would require more than 300 acre-feet of water over the first 3 to 18 months of construction. As described on page D-108 of the Draft Supplemental EIR, construction water demand would range from 309.3 to 364.6 acre-feet over approximately 22 to 24 months; depending on whether the construction period is 22 or 24 months, this water demand equates to approximately 198.9 acre-feet per year (afy) for the first year and 110.5 afy for the next 10 months (total demand of 309.3 acre-feet), or 232 afy for the first year and 132.6 afy for the second year (total demand of 364.6 acre-feet).

The commenter states that the cumulative scenario needs to be considered, and notes water requirements for the recently approved Blythe Solar Energy Project (BSEP) and Genesis Solar Energy Project (GSEP). The environmental impacts of the BSEP and the GSEP, considered to be part of the proposed action to expand the CRS, were previously evaluated under both CEQA and NEPA, and those analyses are incorporated by reference into the Final Supplemental EIR. In addition, Section D.4.5 (Connected Actions), presented on pages D-116 through D-128 of the Draft Supplemental, fully addresses the potential impacts of the BSEP and GSEP, including analysis of impacts to water resources from construction and operation of both projects. Mitigation Measures H-7a (Groundwater Well Contingency Plan), H-7b (Groundwater Monitoring and Reporting), and H-7c (Water Supply Plan for Use of Colorado River Water), presented in Section D.4.4 of the Draft Supplemental EIR, would ensure that all potential impacts associated with the depletion of groundwater supplies or interference with groundwater recharge (Impact H-7) would be less than significant.

The cumulative scenario relevant to water resources is addressed in Section E of the Final SEIR. Tables E-1 and E-2 present existing and foreseeable future projects relevant to the analysis of the CRS expansion. With incorporation of the mitigation measures included in Section D.4 of the Final Supplemental EIR and the DPV2 Final EIR/EIS (2006), the Project's incremental effect on water resources would not be cumulatively considerable. Therefore, no revisions have been incorporated.

B02-7 Eleven cultural resources potentially eligible for the National Register of Historic Places (NRHP) occur within and adjacent to areas that could be impacted by ground-disturbing activities for the CRS. Nine of these resources are historic-era features related to the World War II Desert Training Center California-Arizona Maneuver Area Cultural Landscape. While none of the identified cultural resources have been formally evaluated for their NRHP eligibility, all are considered to be historical resources for purposes of environmental analysis.

Local Native American groups have been contacted during the scoping and preparation of this Draft SEIR (see Appendix 4) and have not identified any sacred sites that would be impacted by the Project or the alternatives. As well, the proposed project is subject to permitting by the BLM, and thus must comply with regulations implementing the National Historic Preservation Act (NHPA), 36 CFR Part 800. The NHPA regulations pro-

vide for the use of phased identification of historic properties (including Traditional Cultural Properties) and resolution of potential adverse effects to these properties under a Programmatic Agreement (PA) on complex projects with multiple alternatives when effects on historic properties cannot be fully determined prior to approval of an undertaking. PAs are commonly used to comply with Section 106 of the NHPA on large projects like BSPP and GSEP. The PA for those two projects will govern a process for completing identification and evaluation of historic properties that will be affected by the CRS expansion, and for resolving adverse effects using measures consistent with their values, prior to construction or other activities that could affect them. The PA will be completed and signed prior to approval of the ROD. Consulting parties and stakeholders, including the State Historic Preservation Officer and Indian tribes, will have an opportunity to participate in consultations on the terms and provisions of the PA before the project is approved and to consult and provide input during all phases of implementation of the PA.

B02-8 The commenter requested that the Final Supplemental EIR analyze the cumulative impacts of energy sprawl on visual resources. As discussed previously in these responses to comments, the Final Supplemental EIR includes the analysis of the Blythe Solar Power Project (BSPP) and the Genesis Solar Energy Project (GSEP) as “connected actions” to the proposed CRS expansion. As explained in Section A of the Final Supplemental EIR, both BSPP and GSEP were previously evaluated under CEQA and NEPA, and those analyses are incorporated into the Final Supplemental EIR by reference. The visual resources impacts of those projects, as described in the prior environmental analyses, are summarized in Section D.7.7 of the Final Supplemental EIR.

Under the discussions of Operational Impacts, the Final Supplemental EIR states that BSPP’s contributions to the visible industrialization of the desert landscape would constitute a significant visual impact when considered with existing and future foreseeable projects, both within the immediate project viewshed (extending 15 miles from the project site) and in a broader context that encompasses the whole of the California Desert Conservation Area. Likewise, Section D.7.7.2 concludes that the anticipated operational visual impacts of the GSEP in combination with past and foreseeable future local projects in the Chuckwalla Valley, and past and foreseeable future region-wide projects in the southern California desert are considered cumulatively significant and unmitigable.

B02-9 The commenter states its support for the No Project Alternative. It further states that the Final SEIR has not provided an alternative to the project which will mitigate for direct and cumulative impacts to wildlife habitat and cultural resources, and cumulative impacts to water resources and visual resources. CEQA requires that the range of potential alternatives to a proposed project include those that could feasibly accomplish most of the basic objectives of the project while avoiding or substantially lessening one or more of its significant effects. (CEQA Guidelines § 15126.6(c).) An EIR need not consider every conceivable alternative to a project. (CEQA Guidelines § 15126.6(a).) To this end, the Draft SEIR identified and evaluated six alternatives which could meet most of the project objectives, some of which would reduce the significant impacts of the proposed project to cultural resources, and others which would reduce the significant impacts to biological resources, while providing local interconnection for the BSPP and GSEP. However, an alternative may reduce some impacts but increase others, and still be part of a reasonable range of alternatives. (CEQA Guidelines § 15126.6 (d).)

Sections D.2 and D.3 and Sections E.3.1 and E.3.2 in the Final Supplemental EIR address the direct and cumulative impacts to biological and cultural resources. Section E.3.3 addresses cumulative impacts to Water Resources. See Response to Comment B02-8 for a discussion of cumulative impacts to visual resources. As discussed in Section F.4 of the Final Supplemental EIR under the conclusion regarding the Environmentally Superior Alternative, all of the alternative sites except the Partial Avoidance Alternative would move the substation site outside of the active sand transport corridor and would reduce the Proposed Project's significant and unmitigable impact on Mojave fringe-toed lizard sand dune habitat to a less than significant level.

Comment Set B03
Sierra Club, California/Nevada Desert Energy Committee

DPV2 Colorado River Substation Expansion Project Supplemental EIR Team

From: Joan Taylor [palmcanyon@mac.com]
Sent: Friday, April 08, 2011 12:51 PM
To: dpv2@aspeneg.com
Subject: attn: Billie Blanchard re SCE Colorado River Substation SEIR

April 7, 2011

Billie Blanchard, CPUC
c/o Aspen Environmental Group
235 Montgomery Street
Suite 935 San Francisco, CA 94104
BY EMAIL TO: dpv2@aspeneg.com

Re: Draft Supplemental Environmental Impact Report for the Proposed Colorado River Substation Expansion Devers-Palo Verde No. 2 Transmission Line Project

Dear Ms Blanchard:

I'm writing on behalf of the Sierra Club with regard to the SEIR for the above-referenced project. As you know, the Club supports the transition to renewable energy, and supported the approval of the Devers to Palo Verde 2 transmission project as an acceptable project to deliver renewable energy to load centers. However, the change of location of the substation has necessitated additional environmental review and we wish to ensure that the optimal location is chosen for this facility.

We concur with the Center for Biological Diversity that, while Avoidance Alternatives 1-3 and the Southern Alternative all achieve the goal of moving the project out of the sand transport corridor and presumably reduce impacts to MFTL, the SEIR's baseline information, analysis and proposed mitigation are not adequate to address potential impacts to other species.

B03-1

Sierra Club would generally support an alternative that removes impacts to the sand transport corridor, but absent a full analysis of impacts to species that do not rely on the sand transport corridor, it is impossible to tell which alternative is most environmentally benign and does the best job of avoiding impacts to sensitive species.

B03-2

Very truly yours,

Joan Taylor, Chair

Calif/Nevada Desert Energy Ctee, Sierra Club

Responses to Comment Set B03

Sierra Club, California/Nevada Desert Energy Committee

- B03-1 The commenter states that the Draft SEIR's baseline information, analysis, and proposed mitigation for Avoidance Alternatives #1, #2 and #3 and the Southern Alternative are not adequate to address potential impacts to species other than Mojave fringe-toed lizard. The comment does not identify any specific species that it alleges have not been properly addressed. In response to this comment, please see General Response GR-1 regarding the adequacy of baseline data in the Draft Supplemental EIR, and General Responses GR-1 and GR-2 regarding impacts to species and habitat evaluated in the DPV2 Final EIR/EIS. Please refer to Responses to Comment B06-2 through B06-4 regarding the adequacy of the Final Supplemental EIR's impact analysis and mitigation.
- B03-2 The commenter expresses general support for an alternative that removes impacts to the sand transport corridor, but suggests that the SEIR does not provide adequate information on species that do not rely on the sand transport corridor. Therefore, the commenter suggests that it is not possible to determine which alternative is environmentally preferred. The comment does not identify any specific species, other than the MFTL, that it believes might be impacted by the project. In response to this comment, please see General Response GR-1 regarding the adequacy of the surveys and studies presented in the Draft SEIR for analyzing impacts to biological resources. See also General Response GR-2 regarding biological resources that are addressed in less detail in the Draft SEIR because potential impacts to these species were adequately analyzed in the DPV2 EIR/EIS (2006).

Comment Set B04 Western Watersheds Project



Michael J. Connor, Ph.D.
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Working to protect and restore Western Watersheds

April 8, 2011

Submitted by E-mail

Billie Blanchard, CPUC
c/o Aspen Environmental Group
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E-mail: dpv2@aspeneg.com

**RE: Devers-Palo Verde No. 2 Transmission Project Supplemental Draft Environmental
Impact Report Colorado River Substation Expansion
California SCH #2005101104**

Dear CPUC:

Western Watersheds Project (“WWP”) thanks you for the opportunity to comment on the Supplemental Draft Environmental Impact Report (SDEIR) for the proposed Colorado River Substation Expansion that is part of the Devers-Palo Verde No. 2 Transmission Line Project.

Western Watersheds Project works to protect and conserve the public lands, wildlife and natural resources of the American West through education, scientific study, public policy initiatives, and litigation. Western Watersheds Project and its staff and members use and enjoy the public lands, including the lands at issue here, and its wildlife, cultural and natural resources for health, recreational, scientific, spiritual, educational, aesthetic, and other purposes.

Western Watersheds Project recognizes that global climate change poses new challenges to our already stressed public lands. While climate change threatens biodiversity and entire fragile ecosystems, our response to climate change also threatens our public lands and their wildlife. Accordingly, WWP supports responsible development of renewable energy projects. Responsible development requires the use of comprehensive, ecologically sound, science-based analysis in determining where renewable energy projects should be sited. Energy developments should focus on private or severely altered lands that are located close to points of use to reduce the need for new transmission projects and to minimize new disturbance or further fragmentation of fragile, native ecosystems. Ecological impacts from renewable energy project development should be fully mitigated with significant and lasting actions such as land/habitat acquisition, habitat restoration, and the reduction of existing negative impacts.

Comment Set B04, cont. Western Watersheds Project

The substation expansion project has arisen because two recently approved, but not yet under construction, industrial scale power plants that are being built on public lands - the Blythe Solar Power Project and the Genesis Solar Energy Project - have requested interconnection to the electricity grid at the Colorado River Substation. The Substation project will have significant impacts on biological and water resources – precisely the kinds of issues associated with accommodating inappropriately sited power plants that are challenging public resources on our already stressed public lands.

B04-1

The project will have significant impacts on important biological, cultural and water resources.

Mojave Fringe-toed Lizard:

The project will eliminate 98 acres of stabilized and partially stabilized sand dunes that are occupied habitat for Mojave fringe-toed lizard and the project will block sand transport onto an additional 1,365 acres. The total loss of habitat is thus 1,463 acres. The affected population is on the southern edge of the range of Mojave fringe-toed lizard and its loss would result in a range contraction for the species.

B04-2

The substation project is being propelled by two power plant projects - Blythe and Genesis – that will also impact Mojave fringe-toed lizards and their habitat.

The EIR failed to analyze any action alternatives that avoid impacts to Mojave fringe-toed lizard that would not result in increased impacts to the listed desert tortoise. None of the action alternatives located the substation outside of Mojave fringe-toed lizard and desert tortoise habitat. The only alternative that would avoid impacts to Mojave fringe-toed lizard and desert tortoise is “no action” and this would not meet the purpose and need for the project. Thus the range of alternatives is both overly constrained and inadequate.

B04-3

The proposed mitigation is also entirely inadequate. The project will impact 1,463 acres of Mojave fringe-toed lizard habitat. For reasons that are not explained in the EIR, the mitigation for the loss of the 1,365 acres habitat that will be degraded and lost due to blocked sand transport is only 0.5:1. This is compensation ratio is inadequate and highly inappropriate given the importance of the affected population and the risks it faces from the project.

B04-4

Desert Tortoise:

The project is located within the bounds of the desert tortoise Eastern Colorado Recovery Unit. This population is part of the federally listed Mojave population. Mitigation Measure B-9d(rev) incorrectly mentions the “Sonoran desert tortoise” – this taxon only occurs in the United States in Arizona.

B04-5

The proposed substation will be close to the Chuckwalla DWMA but the EIR includes no analysis or discussion of the effects of the project on raven and coyote populations. Local raven and coyote populations are likely to benefit from subsidies provided by the substation and

Comment Set B04, cont.
Western Watersheds Project

increase. Both ravens and coyotes are well established desert tortoise predators. Mitigation measures must be added to address raven management.

B04-5 cont.

Water Resources:

The substation and associated energy projects will be located within the boundaries of the Chuckwalla Valley Groundwater Basin. The EIR includes “Table D.4-1. Estimated Budget for the Chuckwalla Valley Groundwater Basin” that purports to show that the basin is in a positive recharge situation. However, there is no analysis of how this is likely to change in the immediate future due to the very climate change effects that the expansive solar power plants this project is meant to facilitate are supposedly going to help counteract. While there is disagreement among climate models, the mean climate change projection is for the southwestern U.S. is for increased aridity (Seager et al., 2007¹). Increased aridity would both reduce precipitation (and thus inflow) and increase evapotranspiration (outflow).

B04-6

Cultural Resources:

All action alternatives will impact cultural resources and all have potentially significant and unmitigable impacts to TCPs. The SDEIR should be revised to include analysis of an action alternative that avoids cultural resources and that will have minimal impact to TCPs.

B04-7

Thank you for the opportunity to provide these comments. Please include Western Watersheds Project on the list of interested public for this project. If we can be of any assistance or provide more information please feel free to contact me by telephone at (818) 345-0425 or by e-mail at <mjconnor@westernwatersheds.org>.

Yours sincerely,



Michael J. Connor, Ph.D.
California Director
Western Watersheds Project
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¹ Seager, R., Ting, M., Held, I., Kushnir, Y., Lu, J., Vecchi, G., Huang, H., Harnik, N., Leetmaa, A., Lau, N., Li, C., Velez, J., Naik, N., 2007. Model predictions of an imminent transition to a more arid climate in southwestern north

Responses to Comment Set B04

Western Watersheds Project

- B04-1 As described in Section ES 3.3 of the Draft and Section B.4 of the Final Supplemental EIR, the expansion of the CRS is required in order to allow interconnection generation from the Blythe Solar Power Project and the Genesis Solar Energy Project. These facilities were approved by the California Energy Commission and Bureau of Land Management and are currently under construction. Due to the related nature of the solar facilities and the proposed CRS expansion, they are considered to be part of “the whole of the action” under CEQA. Therefore, the impacts of the solar facilities related to biological, cultural and water resources are discussed in Sections D.2.5, D.3.5 and D.4.5 of the Final Supplemental EIR, respectively.
- B04-2 The habitat loss and range contraction noted by the commenter is consistent with the MFTL impact analysis presented in Section D.2 of the Draft SEIR. As discussed in the Draft Supplemental EIR, Mitigation Measure B-9j would require compensatory mitigation and restoration/enhancement of protected land for impacts to sand dune habitat; this mitigation measure would reduce impacts to MFTL, but not to a less than significant level. (Draft SEIR, Sec. D.2.4, p. D-20.) The BSPP and GSEP are considered in the cumulative impact analysis for MFTL in Section E.3.1 (see Table C-2, items K and N). Additionally, both BSPP and GSEP were previously evaluated under CEQA and NEPA, and those analyses are incorporated into the Supplemental EIR by reference. The impacts of those projects on biological resources, as described in the prior environmental analyses (i.e., Section C.2 of the BSPP Revised Staff Assessment, the Biological Resources section of the BSPP SSA, Section C.2 of the GSEP RSA, and Section C.2 of the RSA Supplement), are summarized in Section D.2.5 of the Supplemental EIR.
- B04-3 CEQA requires that the range of potential alternatives to a proposed project include those that could feasibly accomplish most of the basic objectives of the project while avoiding or substantially lessening one or more of its significant effects. (CEQA Guidelines § 15126.6(c).) An EIR need not consider every conceivable alternative to a project. (CEQA Guidelines § 15126.6(a).) To this end, the Draft SEIR identified and evaluated alternatives which would, in part, reduce the significant and unmitigable (Class I) impacts of the proposed project to MFTL from sand transport blockage, while providing local interconnection for the BSPP and GSEP. Though these alternatives would increase impacts to the desert tortoise, those impacts would be reduced to less than significant with implementation of Mitigation Measures B-1a, B-7b, and B-7c (Class II). The fact that an alternative reduces some impacts but increase others does not preclude it from being part of a reasonable range of alternatives. (CEQA Guidelines § 15126.6 (d).) Refer also to Response to Comment B06-18 regarding adequacy of alternatives.
- B04-4 The commenter disagrees with the adequacy of a 0.5:1 mitigation ratio for impacts to downwind MFTL habitat. A 0.5:1 mitigation ratio is appropriate because the diminishing replenishment of sand within the sand shadow downwind of the substation would take place over an extended period of time, which could allow MFTL to gradually disperse from the sand shadow around the substation to undisturbed habitat east of the proposed project. This mitigation ratio is also consistent with that applied for the Palen Solar Power Plant and current recommendations by CDFG and BLM. Please note that the Avoidance Alternative #1, which was found to be environmentally superior, would move

the substation site outside of the active sand transport corridor and would reduce the Proposed Project's significant and unmitigable impact on Mojave fringe-toed lizard sand dune habitat to a less than significant level.

B04-5

The commenter asserts that Mitigation Measure B-9d(rev) incorrectly mentions the "Sonoran desert tortoise." MM B-9d(rev) pertains to special-status wildlife not listed under the federal Endangered Species Act (ESA) and was revised from MM B-9d in the DPV2 Final EIR/EIS. Since 2006, the Sonoran population of desert tortoise has become a Candidate for listing under the federal ESA. The DPV2 Project analyzed in the 2006 Final EIR/EIS, included portions in Arizona within Sonoran desert tortoise habitat, but was modified in November 2009 by CPUC Decision D.09-11-007 to only be constructed within California. Since neither the DPV2 transmission line or the CRS occur within Arizona, reference to Sonoran desert tortoise has been deleted from MM B-9d(rev) in the SEIR as follows:

B-9d(rev) Conduct pre-construction reptile surveys. Prior to construction, SCE shall conduct surveys in areas of suitable habitat for Mojave fringe-toed lizard, ~~Sonoran desert tortoise~~, common chuckwalla, banded Gila monster, and desert rosy boa within 48 hours prior to the start of construction activities The Forest Service will be notified of any sensitive wildlife identified on NFS lands. ~~Also during construction, if a Sonoran desert tortoise occurs on the project site, construction activities adjacent to the individuals' location will be halted and the USFWS's 2009 Desert Tortoise Field Manual or more current guidance provided by CDFG and USFWS Guidelines for Handling Sonoran Desert Tortoises Encountered During Construction Projects will be followed by qualified personnel.~~

Refer to Response to Comment B02-2 regarding analysis of impacts from increased raven predation. The DPV2 Final EIR/EIS (2006) includes mitigation for raven management (Mitigation Measure B-16a). Implementation of raven management/control would effectively reduce subsidies for other predators, including coyotes.

As discussed in Response to Comment B04-3, impacts of the CRS expansion to desert tortoise would be reduced to less than significant with implementation of Mitigation Measures B-1a, B-7b, and B-7c (Class II).

B04-6

The commenter expresses concern regarding the potential effects of global warming on water supply reliability, specifically as related to the Chuckwalla Valley Groundwater Basin. Analysis in the Draft SEIR includes climate change among the factors affecting the quantity of groundwater in storage (Draft SEIR, p. D-97.) Mitigation Measures H-7a (Groundwater Well Contingency Plan), H-7b (Groundwater Monitoring and Reporting), and H-7c (Water Supply Plan for Use of Colorado River Water), presented in Section D.4.4 on pages D-113 through D-115 of the Draft Supplemental EIR, would ensure that impacts of the proposed project associated with the depletion of groundwater supplies or interference with groundwater recharge (Impact H-7) would be less than significant. In particular, Mitigation Measure H-7b requires the implementation of a groundwater monitoring and reporting plan which includes the annual submittal of monitoring data reports by the Applicant to the CPUC for at least the first five years of the project, and includes reporting and enforcement mechanisms to halt groundwater pumping under

certain conditions. These mitigation measures are sufficient to ensure that significant water supply impacts do not occur as a result of the Proposed Project, including any impacts related to changes in water supply availability under varying climatic conditions. No revisions have been incorporated.

B04-7

The commenter states that all of the identified alternatives to the project will impact cultural resources and further, that all of the alternatives have potentially significant impacts to Traditional Cultural Properties (TCPs). The Supplemental EIR acknowledges the possibility that TCPs could be identified as consultations with Native American tribes continue during the NEPA and Section 106 compliance processes. However, consultation with the Tribes during scoping and preparation of the Draft SEIR has not identified any TCPs in the Proposed Project site or in any of the alternatives (see SEIR Appendix 4). Given the nature of the identified resources identified in the Project and alternatives, it is unlikely that further consultation will reveal TCPs. Because no TCPs have been identified, the analysis of impacts does not differ among the alternatives with respect to such sites.

The range of potential alternatives to a proposed project must include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. (CEQA Guidelines § 15126.6(c).) An EIR need not consider every conceivable alternative to a project. (CEQA Guidelines § 15126.6(a).) To this end, the Draft SEIR identified and evaluated six alternatives which could meet most of the project objectives, four of which would reduce the significant impacts of the proposed project to cultural resources, while providing local interconnection for the BSPP and GSEP. However, an alternative may reduce some impacts but increase others, and still be part of a reasonable range of alternatives. (CEQA Guidelines § 15126.6 (d).) See Response to Comment B02-7 with regard to the continuing consultation with tribes and resolution of adverse effects through development and implementation of a Programmatic Agreement for the Project.

Comment Set B05
Solar Millennium LLC and NextEra Energy Resources



Ms. Billie Blanchard
California Public Utilities Commission
c/o Aspen Environmental Group
235 Montgomery Street, Suite 935
San Francisco, CA 94104-3002

April 8, 2011

**Subject: *Comments on the Draft Supplemental EIR
Colorado River Substation Expansion Project
Proposed by Southern California Edison (SCH No. 2005101104)***

Dear Ms. Blanchard,

Thank you for the opportunity to provide comments on the Draft Supplemental Environmental Impact Report (Draft EIR) for the Colorado River Substation Expansion Project (CRS Substation). These comments have been jointly prepared by Solar Millennium, LLC (Solar Millennium) and Genesis Solar, LLC, a wholly-owned subsidiary of Nextera Energy Resources, LLC (Genesis Solar). Solar Millennium and Genesis Solar urge the California Public Utilities Commission (CPUC) to quickly approve the Southern Alternative as the only feasible alternative that can achieve the objectives of the CRS Substation. If the CPUC does not approve the Southern Alternative, the financing, construction and delivery of clean renewable energy from Solar Millennium's Blythe Solar Energy Project (BSPP) and Genesis Solar's Genesis Solar Energy Project (GSEP) would be delayed or jeopardized.

To achieve this goal, we provide these joint comments on the Draft EIR and specifically request the following minor modifications to the analysis and conclusions to be included in the Final EIR: (1) the Final EIR should more strongly confirm that the Southern Alternative is the only alternative that can achieve all three Project Objectives; (2) the Final EIR should confirm that the Southern Alternative is either the Environmentally Superior Alternative or is at least equal to Avoidance Alternative 1; and (3) the Final EIR should acknowledge that Avoidance Alternative 1 is infeasible because it cannot meet the Project Objectives. These requested modifications are explained in detail below.

B05-1

Comment Set B05, cont.

Solar Millennium LLC and NextEra Energy Resources

BACKGROUND

B05-1 cont.

SCE's request is to expand the CRS Substation in order to accommodate several renewable energy projects contained in the California Independent System Operator's (CAISO) transition cluster, and particularly the BSPP and the GSEP. These projects are fully permitted and have commenced construction, making them extremely viable projects that are ready to proceed if the CRS Substation can be approved and constructed in a timely fashion. For the BSPP and the GSEP, the timing of SCE's receipt of the entitlements and its placement of the CRS Substation into service are critical to obtaining financing to construct both projects, and to achieve the projects' projected commercial operation dates, as explained below.

Blythe Solar Power Project

Solar Millennium is the owner of the BSPP and the Palen Solar Power Project (PSPP), both solar thermal power generating facilities located along the Interstate-10 corridor. As the CPUC acknowledges in the Draft EIR, the BSPP will interconnect to the CRS Substation. The BSPP, when fully built, will have a nominal generating capacity of 1000 MW. The BSPP has executed a Large Generator Interconnection Agreement (LGIA) for delivery at the CRS Substation, which was recently approved by the Federal Energy Regulatory Commission (FERC). The BSPP has a Power Purchase Agreement (PPA) with SCE for the first 500 MW. The timely permitting and construction of the CRS Substation is a condition precedent to receiving the debt and equity financing necessary to construct the BSPP and meeting the obligations for delivery under the PPA. If the CPUC does not approve the Southern Alternative quickly it is likely the BSPP will be delayed indefinitely, tens of millions of dollars of private capital will have been lost along with thousands of construction, operations and supply chain jobs. Preliminary construction has started on the BSPP in reliance on the CRS Substation proposed location and financial closing (wherein the debt and equity required is secured) is imminent.

Solar Millennium has applied for the Department of Energy (DOE) Loan Guarantee Program to support financing of the BSPP. The DOE's Loan Guarantee Program has a programmatic deadline of September 30, 2011, meaning the debt financing has to close no later than that date. Because the government requires about two months to seek internal approvals before a loan can be funded, resolution of all major outstanding issues (including interconnection and transmission) must occur as soon as possible. In order to close financing, DOE (and the project's equity investors) will need certainty that the construction schedule of the CRS Substation will line up with the construction schedule of the BSPP. More specifically, the CRS Substation will need to be complete

Comment Set B05, cont.

Solar Millennium LLC and NextEra Energy Resources

and energized well in advance of the project's commercial operation date, otherwise the project will not be able to obtain backfeed power when needed and generate electricity and export it to the grid upon commercial operation. Quite simply, financing cannot close without certainty that the plant will be operational and selling power to SCE, in the time frames specified in the respective loan documents and PPA. In order to arrive at a definitive schedule, the Southern Alternative must be selected and permitted. If the BSPP is unable to close financing through the DOE's Loan Guarantee Program this summer, the BSPP will be delayed indefinitely.

B05-1 cont.

The adverse impacts of a failure to close financing cannot be understated. Solar Millennium commenced preliminary construction of the BSPP in November 2010 and has expended and incurred tens of millions of dollars in developing the BSPP. All of this "at risk" private capital was invested in reliance upon the CRS Substation being built on time. The recovery of this capital, and the value of its investment, is dependent upon completing the BSPP, which cannot happen absent financial close. Further, the BSPP is expected to create over 1,000 direct construction jobs and thousands of additional jobs throughout the supply chain and contribute hundreds of millions of dollars to the local and regional economy (unemployment in Riverside County stood at 14.2% in December 2010). These critical jobs and economic benefits will not materialize unless financial close takes place under the Loan Guarantee Program. Waiting for September 30 to reach financial close is unacceptable in light of current attempts by Congress to defund the program.

The Southern Alternative provides the greatest level of schedule certainty, and thus reduces the execution risk faced by the BSPP. The Avoidance Alternatives are not viable solutions given the delays inherent in conducting completely new engineering studies and acquiring title to the privately held parcels of land. These delays would endanger the financing of the BSPP through the DOE Loan Guarantee Program. For innovative projects of this size and scale, alternative sources of financing cannot easily be arranged.

Genesis Solar Energy Project

Genesis Solar is the owner of the GSEP, a solar thermal power generating facility located along the Interstate-10 corridor. The GSEP will also interconnect to the CRS Substation. Genesis Solar has a Commission approved long-term power purchase agreement with Pacific Gas and Electric Company for the electric output from the GSEP. The California Energy Commission approved the GSEP in September 2010 and construction began in January 2011. The GSEP is in the final stages of processing a Large Generator Interconnection Agreement (LGIA) for delivery at the CRS Substation. The GSEP, once constructed and operational, will meet the 2013 RPS compliance

Comment Set B05, cont.

Solar Millennium LLC and NextEra Energy Resources

period pursuant to the draft legislation expected to become law and support the carbon reduction goals.

B05-1 cont.

An expeditious and decisive approval of the CRS Substation is critical for the GSEP to meet its construction and financing milestones. The planned commercial operation date for the first of the two units is May 2013. To execute that schedule, initial construction began in January 2011. If the CPUC does not approve the Southern Alternative quickly, it is likely the GSEP will put off advanced construction efforts planned for 2011. This delay would cause the postponement of 300-500 hundred construction jobs and countless residual employment impacts related to operations and supply chain jobs. The GSEP requires back feed power and the ability to sell test energy up to five months prior to the planned commercial operation date of its first 125 MW unit (e.g. January 2013). This means that the GSEP interconnection, and the Colorado River Substation, must be completed by that date. A delay of the CRS past the late Spring of 2013 will constitute nearly a full year delay in the Genesis project since testing of the facility prior to commercial operation must take place during the spring or summer when the sun is strongest. A delay until 2014 would compromise the ability of Genesis to meet its commercial obligations and the economics of the project.

Although SCE has stated that the CRS Substation will be operational in November 2013, Genesis Solar is working with SCE to find ways to accelerate the CRS Substation construction schedule to meet the GSEP's projected online date.

ALTERNATIVES, PROJECT OBJECTIVES AND FEASIBILITY

The Draft EIR, at Page C-2, identifies that the CRS Substation Project Objectives are to:

B05-2

- Provide transmission access to potential future renewable resources in the Blythe area;
- Help enable California to meet its renewable energy goals; and
- Complete substation construction in a timely fashion to interconnect with generation-tie lines from the two approved solar power projects (BSPP and GSEP) by the LGIA target dates.

The Draft EIR correctly points out that the California Environmental Quality Act (CEQA) Guidelines (Guidelines)¹ require analysis of Alternatives that are feasible and can meet most of the Project Objectives. Section 15126.6(a) of the Guidelines provides, "An EIR need not consider every conceivable alternative to a project. Rather it must consider a

1

Comment Set B05, cont.

Solar Millennium LLC and NextEra Energy Resources

reasonable range of *potentially feasible* alternatives that will foster informed decision-making and public participation.” (*Emphasis added*). It is well settled that CEQA does not mandate a particular result but rather is intended to provide information that decision makers can consider before making the ultimate decision. While we acknowledge that the range of alternatives identified in the Draft EIR are appropriate, we urge the Commission to select the Southern Alternative because it is the only alternative that reduces environmental impacts with the potential to also achieve all three of the CRS Substation Project Objectives.

B05-2 cont.

The Southern Alternative Is Environmentally Equal to Avoidance Alternative 1

The Draft EIR identifies Avoidance Alternative 1 as the Environmentally Superior Alternative and acknowledges:

Otherwise, the Southern Alternative would also be environmentally superior should Avoidance Alternative #1 create significant delays that would affect its ability to meet project objectives and be feasible. The Southern Alternative and the transmission interconnections would be located entirely on public (BLM) land. The Southern Alternative would reduce significant impacts to biological resources to less than significant with the implementation of mitigation along the gen-tie/transmission interconnections and access road. It is less environmentally preferred than Avoidance Alternative #1 because it has the potential to impact desert washes and desert kit foxes; however, these impacts would be less than significant with mitigation. It would also impact a greater number of cultural resources. (Draft EIR, Page F-5)

One factor the Draft EIR considers in its assessment for environmentally preferred sites is the potential for the existence of cultural resources. The Draft EIR identifies the potential for more cultural resource impacts by the Southern Alternative compared to Avoidance Alternative 1. However, this conclusion should not be dispositive in determining the best alternative. Rather, the draft EIR should consider the type of resource and its potential significance. A site with one significant resource may have more impact than a site with ten insignificant resources.

B05-3

The sole reason that the Draft EIR concludes that the Southern Alternative would have greater cultural impacts than the Avoidance Alternative is because the pedestrian surveys and literature search results identified 7 more cultural resources within the Southern Alternative than within the Avoidance Alternative 1. However, the comparison table and conclusions should acknowledge that the Southern Alternative has 5 archaeological sites and 2 isolates within the site boundary compared to the Avoidance

Comment Set B05, cont.

Solar Millennium LLC and NextEra Energy Resources

Alternative 1 which has 3 archaeological resources within its site boundary. The remaining potential known resources are within the buffer areas or within the transmission line corridors, and therefore with implementation of the mitigation measures identified in the Draft EIR and the CEC Final Decisions for the BSPP and GSEP could be avoided if such resources were determined to be significant. The Draft EIR should acknowledge that the mere number of sites does not necessarily mean one alternative is superior to the other.

B05-3 cont.

The Draft EIR goes on to conclude that impacts to cultural resources for both the Avoidance Alternative 1 and the Southern Alternative could potentially be unmitigatable. According to the Draft EIR, the reason that cultural resource impacts are potentially unmitigatable for both the Southern Alternative and the Avoidance Alternative 1 is due to the potential to discover **unknown** additional resources and the potential to discover **unknown** Traditional Cultural Properties (TCPs)². When the type of known resources on a site indicates use by indigenous people, it may suggest that there is a greater potential to discover other archeological resources on that site. In the case of the Avoidance Alternative 1, one of the sites is a “pot drop”. “Pot drops” are indicative of the site use by indigenous people. On the other hand the resources at the Southern Alternative consist of potential World War II Desert Training Center (DTC) resources and lithic isolates. Lithic isolates do not indicate potential habitation to the same degree as “pot drops”, and DTC artifacts are not indicative of TCPs. Thus, the Draft EIR should conclude that the Avoidance Alternative 1 has a greater potential for undiscovered archaeologically significant resources and TCPs than the Southern Alternative.

All other impacts from both Avoidance Alternative 1 and the Southern Alternative would be mitigated to less than significant levels with the exception of cumulative impacts to greenhouse gas emissions, which are deemed potentially significant and unmitigatable for all alternatives. Both alternatives equally avoid the impacts to the sand transport corridor and Mojave Fringe Toad Lizard, which are the primary impacts of the proposed project the Alternatives were developed to avoid. While the Draft EIR identifies Alternative 1 as the “Environmentally Superior Alternative”, the difference in environmental impacts between the two alternatives is negligible at best. Therefore, the Draft EIR should modify its conclusion that the Avoidance Alternative 1 is environmentally superior to the Southern Alternative and should treat them both as Environmentally Superior Alternatives.

B05-4

When evaluating the feasibility of Alternative 1 against the feasibility of the Southern Alternative and their respective abilities to meet project objectives, the CPUC does not

² See Table F-1, Page F-6 of the Draft EIR

Comment Set B05, cont.

Solar Millennium LLC and NextEra Energy Resources

have to balance that evaluation against any material tradeoff in environmental impacts between the two alternatives.

B05-4 cont.

The Southern Alternative Achieves Objectives Better Than Avoidance Alternative 1

B05-5

For the reasons discussed below, the CPUC Avoidance Alternative 1 should be rejected because it has a greater potential to cause a significant delay in CRS operation and by extension jeopardizes the viability of two solar projects interconnecting to it. This makes this alternative far less feasible than the Southern Alternative because it is unable to achieve the Project Objectives. The Southern Alternative, by comparison, does not have the potential to cause a significant a delay and, therefore, is far more feasible and better able to meet all project objectives while achieving essentially the same environmental results.

Southern Alternative Achieves Objective 1 - Provide Transmission Access to Potential Future Renewable Resources

B05-6

The first objective of the CRS Substation is to provide transmission access to potential future renewable resources in the Blythe area. It is important to note that the original location for the CRS (originally the Midpoint Substation) has been planned for well over 10 years. Solar Millennium and Nextera began developing the BSPP and GSEP approximately 5 years ago, relying on the location of the CRS. The BSPP and the GSEP were future renewable projects envisioned when the CRS Substation was planned. The ability of these large solar projects to interconnect to the CRS Substation in a timeline that supports financing, construction and ultimate delivery is necessary to achieve Objective 1. If generation projects cannot rely on fully permitted transmission facilities to be constructed at the permitted locations, the entire interconnection, renewable procurement structure and siting process of new generation is frustrated and undermined. For both BSPP and GSEP, the development timelines were structured around the expectation of the energizing of the CRS Substation. They have now begun construction and will be ready to deliver renewable energy, to satisfy the state's renewable mandates in 2013 and 2014 which will meet this objective. For this reason, to achieve the first project objective, the selected alternative must facilitate the timely interconnection of the BSPP and GSEP.

The Southern Alternative is the only alternative reasonably likely to achieve this result because it is the only alternative that holds the prospect of construction completion in time to accommodate the operation dates of the two solar projects. As stated above, the GSEP has a planned commercial operation date of May 2013 and the BSPP needs backfeed power earlier in order to accommodate its construction. SCE's projected

Comment Set B05, cont.

Solar Millennium LLC and NextEra Energy Resources

online date for the CRS Substation (November 2013) remains problematic because it currently does not support GSEP's online date or the date BSPP requires back feed power. However, Genesis Solar, Solar Millennium and SCE are working together to find ways to accelerate the CRS Station construction schedule. To achieve this it will be essential to minimize further delays in finalizing the design and engineering work and commencement of construction. The Southern Alternative provides the best opportunity to achieve the desired schedules because it is located on Bureau of Land Management (BLM) land and therefore avoids the need to acquire private land for the substation or the generator tie-lines. The Southern Alternative therefore, thereby avoids delays associated with negotiations with landowners and the need for SCE to exercise its power of eminent domain. Since neither Solar Millennium nor Genesis Solar possess the power of eminent domain to route their gen-ties, the Southern Alternative enables both projects to avoid the uncertainty regarding whether land can be acquired on reasonable terms. Given the complexity, timing and uncertainty of Alternative 1, the length of delay for the solar projects is very uncertain and therefore poses a large risk to both projects both in terms of financing, construction schedules, and the economic viability of the projects. Finally, according to SCE, the Southern Alternative involves less additional engineering work than Avoidance Alternative 1.

B05-6 cont.

Southern Alternative Achieves Objective 2 – Help Enable California To Meet Its Renewable Energy Goals

B05-7

The BSPP and the GSEP should be viewed as key aspects of helping California meet its renewable energy goals. The Southern Alternative is the only alternative reasonably likely to accommodate the interconnection schedules of the BSPP and GSEP. These are advanced projects that are highly viable and positioned to be constructed and delivering energy in 2013 to meet the utilities' renewable portfolio requirements.

The BSPP and GSEP represent almost half of the fully permitted California renewable energy capacity. As stated above, these projects are fully permitted and have commenced construction, making them highly viable projects that will continue to move forward once the CRS Substation is approved. Both the BSPP and GSEP planned commercial operation dates are important to ensure that the projects will be capable of delivering renewable energy in a certain timeframe, with GSEP targeting to catch the 2013 summer peak season. Under the new renewable portfolio standard legislation that has recently been adopted by the Legislature, renewable energy produced by the projects will be important to help the state meet 2013 requirements. If GSEP's commercial operation date is delayed beyond the summer of 2013, or the projects are unable to secure financing in the first place, California will miss the opportunity to utilize the most viable renewable resources that would have been online and operating if the

Comment Set B05, cont.

Solar Millennium LLC and NextEra Energy Resources

CRS Substation had been built on time. Facilitating a timely online date for the BSPP and the GSEP is critical in helping to achieve California's renewable energy goals.

B05-7 cont.

Southern Alternative Achieves Objective 3 – Complete Substation Construction In A Timely Fashion To Interconnect With Generation Tie-Lines From The Two Approved Solar Power Projects (BSPP and GSEP) By The LGIA Target Dates

B05-8

The Southern Alternative is the only alternative that is commercially feasible that can meet Objective 3. The Southern Alternative is the only alternative that would not require the acquisition of private land for the CRS Substation property. Additionally, it is the only alternative that would not require private property acquisition for both the BSPP and the GSEP. As the Draft EIR acknowledges, the Avoidance Alternative 1 would require private land acquisition by SCE and for the BSPP and GSEP. Acquisition of private property by SCE would clearly take time and even if such acquisition was expedited with willing sellers, it would inevitably take more time than the Southern Alternative, which is entirely on land managed by BLM. SCE has indicated that the BLM is willing to grant a Right of Way for the Southern Alternative on reasonable terms, and SCE is working to gain access to the site to conduct evaluations in support of its design and engineering work.

With respect to the BSPP and GSEP gen-tie transmission lines, the potential for delay in acquiring access across private land is even more troubling because neither Solar Millennium nor Nextera have the ability to acquire property through eminent domain. Even if the access could be obtained quickly, such delay in providing evidence to the DOE Loan Guarantee evaluators and independent engineers will seriously delay financing and consequentially the entire delivery schedule. As explained above, the delay in completing the substation will extend the commercial operation date for the GSEP, a renewable resource that is fully capable of being constructed in time to deliver renewable energy for the summer 2013 peak season.

Additionally, Avoidance Alternative 1 would change the orientation of the CRS Substation whereas the Southern Alternative would not. Our understanding is that such a change in orientation would require duplication of certain engineering that would not need to be undertaken for the Southern Alternative.

Feasibility

B05-9

Section D and Appendix 1 of the Draft EIR discuss the potential site control issues and associated delays that plague Avoidance Alternative 1. However this delay is only discussed in the context of the Alternative's ability to meet project objectives; the

Comment Set B05, cont.

Solar Millennium LLC and NextEra Energy Resources

sections of the Draft EIR on “feasibility”, e.g., Section 2.1.3 of Appendix 1, do not discuss site control and delay as key factors in determining feasibility. Per CEQA Guidelines 15364 and 15126.6, timing and site control are, in fact, key factors in determining an alternative’s feasibility:

B05-9 cont.

15364: "Feasible" means capable of being accomplished in a successful manner ***within a reasonable period of time***, taking into account economic, and environmental, legal, social, and technological factors. (emphasis added)

15126.6(f) (1): Feasibility. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and ***whether the proponent can reasonably acquire, control or otherwise have access to the alternative site . . .*** (emphasis added).

Accordingly, the Final Supplemental EIR should be revised to include the discussions regarding timing and site control into the sections of the document that discuss the feasibility of the alternatives.

Genesis Solar and Solar Millennium disagree with the Draft EIR’s conclusion in Section C.4.3 that Avoidance Alternative #1 is “feasible.” In that section, the Draft EIR accurately describes the delays that could result from:

B05-10

- SCE having to pursue eminent domain proceedings;
- Issues associated with the Palo Verde Land and Water Company’s reservation of rights;
- Both solar projects having to reroute their respective gen-tie lines around private property if landowners are not cooperative;
- Both Solar Millennium and Genesis Solar do not have the power of eminent domain to facilitate their gen-tie lines.

This should have lead to a clear conclusion that Avoidance Alternative #1 is *not* feasible due to the high potential for significant delays. We urge the CPUC Staff to reconsider the conclusion that Avoidance Alternative #1 is feasible.

Comment Set B05, cont.
Solar Millennium LLC and NextEra Energy Resources

CONCLUSION

B05-10 cont.

The BSPP and GSEP are fully permitted and require timely approval of the Southern Alternative by the Commission in order to close financing and continue construction. The Final EIR should more strongly reflect that the Southern Alternative is the only alternative that can achieve all three Project Objectives. For the reasons outlined, the Final EIR should be modified to reflect that the Southern Alternative is either the Environmentally Superior Alternative or is at least equal to the Avoidance Alternative 1. Additionally, the Final EIR should acknowledge that Avoidance Alternative 1 is infeasible because it cannot meet the Project Objectives.

Sincerely,



Josef Eichhammer
CEO
Solar Millennium, LLC



Matt Handel
Vice President Solar Development
NextEra Energy Resources

Responses to Comment Set B05

Solar Millennium LLC & NextEra Energy Resources

- B05-1 The commenter's summary of the enclosed comment letter, background on BSPP and GSEP, and support for the Southern Alternative are noted. See Responses to Comments B05-4 through B05-10 and Responses to Comments D01-1 through D01-10 regarding the feasibility of alternatives, project objectives and the Environmentally Superior Alternative.
- B05-2 The commenter's support for the Southern Alternative is noted. Please refer to Response to Comment B06-18 regarding the range of alternatives considered and Response to Comment B05-4 regarding the Environmentally Superior Alternative.
- B05-3 While potentially eligible for the National Register of Historic Places (NRHP), none of the cultural resources that could be affected by the Colorado River Substation Expansion or the evaluated alternatives have been formally evaluated for their NRHP eligibility. Because the proposed project must be permitted by the BLM, and thus, is subject to the regulations implementing the NHPA found at 36 CFR Part 800, Programmatic Agreements (PAs) for BSPP and GSEP will govern a process for completing identification and evaluation of historic properties that will be affected by the Proposed Project. Final determinations of site eligibility will be made by the BLM at a later date. Thus, as stated in this comment, it is premature to identify an Environmentally Superior Alternative with confidence, based solely on a comparison of the number of unevaluated resources in each alternative; some, all, or none of the resources in any alternative could be found ineligible for the NRHP.
- While the impacts to cultural resources for both Avoidance Alternative #1 and the Southern Alternative (as well as for the Proposed Project and all other alternatives) could be potentially unmitigable if buried archaeological resources or Traditional Cultural Properties (TCPs) are identified, the likelihood is identical (and low) for all alternatives. Consultation with the Tribes during scoping and preparation of the Draft SEIR has not identified any TCPs in the Proposed Project or any of the alternatives. Given the nature of the resources identified on the sites of the Proposed Project and alternatives, it is unlikely that further consultation will reveal TCPs. Because no TCPs have been identified, the analysis of impacts does not differ among the alternatives with respect to such sites.
- The potential for discovering buried archaeological sites during project development is largely unrelated to the types of resources that are found on the surface. Buried site potential is a direct function of the geomorphological development of a particular locality, and whether environmental conditions (wind, erosion, runoff, etc.) may have contributed to the accumulation of sediments that may now be obscuring archaeological evidence of past human activity (historic or prehistoric). In this respect, the Proposed Project and the alternatives are indistinguishable and have some potential for yielding buried archaeological deposits. It is premature to assess the significance of resources that may be discovered in buried contexts.
- B05-4 The commenter states that the Final SEIR should be revised to conclude that both Avoidance Alternative #1 and the Southern Alternative are equally environmentally superior to the Proposed Project and the other alternatives, including the No Project Alternative.

Because Avoidance Alternative #1 was found to meet most project objectives, be potentially feasible, and reduce significant impacts of the proposed CRS (see Section 4.3 of SEIR Appendix 1), it was carried forward for full evaluation in Section D of the SEIR. Section F compares the alternative sites to one another, to the proposed CRS and to the No Project Alternative with respect to environmental impacts. As required under CEQA, the comparison of alternatives does not reevaluate potential feasibility or the ability of alternatives to meet project objectives. As stated in Section F.3 of the SEIR, although the Supplemental EIR identifies an environmentally superior alternative, it is possible that the ultimate decision-makers could balance the importance of each impact area differently and reach a different conclusion. This assessment by decision-makers also applies to issues such as feasibility and ability to meet project objectives, as supported by substantial evidence in the record.

Specifically, the conclusion regarding Avoidance Alternative #1 in Section F.4.1 states:

While [Avoidance Alternative #1] is found to be potentially feasible and to meet most project objectives, a portion of the substation is on private property. Therefore, decision makers will evaluate the potential for project delay based on the potential requirement for negotiations with private landowners and possible condemnation proceedings, which could affect SCE's operational timeline objective. Also, approval would be required by the Palo Verde Land and Water Company due to reservation rights on the property.

As the commenter states and it is concluded in SEIR Section F, Avoidance Alternative #1 and the Southern Alternative would have largely similar potential impacts. Namely both would have similar impacts to desert tortoise and both would reduce impacts to MFTL sand dune habitat to a less than significant level with the incorporation of mitigation.

Since publication of the Draft Supplemental EIR, additional information on the Southern Alternative was submitted by SCE (Comment Letter D01) and within this Comment Letter B05. Exhibit 2, submitted by SCE (see Response to Comment D01-35), provides additional information that indicates that in addition to the site of the Southern Alternative itself, the transmission line interconnections between the Southern Alternative location and DPV1 and DPV2 would be located outside of the active sand transport corridor as well.

See Response to Comment D01-21 regarding jurisdictional washes on the Southern Alternative site. Although concurrence would be required by U.S. Army Corps of Engineers and/or California Department of Fish and Game, SCE has stated that it conducted a formal jurisdictional determination of aquatic resources at the Southern Alternative site and no jurisdictional waters of the U.S. or waters of the State were found. As a result, descriptions of the washes on the Southern Alternative site have been revised to say "potentially jurisdictional" throughout the Final SEIR.

As stated in Response to Comment B05-3, all of the cultural resources documented on both the Southern Alternative and Avoidance Alternative #1 sites likely are ineligible for the NRHP, however, a determination from the Bureau of Land Management is required for a final eligibility evaluation. Because it is unlikely that any of the sites will be determined to be eligible, and if any sites are determined eligible, mitigation would likely reduce impacts to a less than significant level, the Southern Alternative and Avoidance Alternatives

tive #1 would have largely similar cultural resources impacts even though Avoidance Alternative #1 would impact 6 unevaluated resources versus 10 unevaluated resources (13 total) at the Southern Alternative.

Although the Avoidance Alternative #1 and the Southern Alternative would be largely similar with respect to environmental impacts, in Section F of the Draft SEIR, Avoidance Alternative #1 was found to be environmentally superior, because the Southern Alternative would have less than significant impacts to kit foxes and desert washes. Although less than significant, impacts to these resources would have additional mitigation requirements, which would not be applicable at the Avoidance Alternative #1 site.

Therefore, no changes have been made to the ranking of the environmentally superior alternative in the Final Supplemental EIR. However, the following revisions have been made to the comparative discussion regarding cultural resources in Section F.4.1 and Executive Summary Section ES.6 of the Final SEIR.

Although the Southern Alternative ~~it~~ would also impact a slightly greater number of unevaluated cultural resources, all of the cultural resources documented on both the Southern Alternative and Avoidance Alternative #1 sites likely are ineligible for the National Register of Historic Places (NRHP) (a determination from the BLM is required for a final eligibility evaluation). Because it is unlikely that any of the sites will be determined to be eligible, and if any sites are determined eligible, mitigation would likely reduce impacts to a less than significant level, the Southern Alternative and Avoidance Alternative #1 would have largely similar cultural resources impacts.

B05-5

The commenter states that the Southern Alternative achieves the project objectives better than Avoidance Alternative #1 and is more feasible due to its lack of potential to cause delays in the project. The SEIR acknowledges that there is potential for delay associated with Avoidance Alternative #1, which could affect its ability to meet the third project objective of an online date by the end of 2013 (see SEIR Section A.1.3 for the list of project objectives). Specifically, Section 4.3.2 of SEIR Appendix 1 (Alternatives Screening Report) describes in detail Avoidance Alternative #1's ability to meet most project objectives and be feasible.

As statutorily defined under CEQA, feasible means "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." (Pub. Res. Code § 1061.1; see also CEQA Guidelines § 15364 [same definition but with addition of "legal" factors].) Because there could be a willing seller, Avoidance Alternative #1 has the potential to be constructed on private land in a reasonable period of time, and thus was considered potentially feasible during the alternatives screening process. The determination that an alternative is potentially feasible is the proper standard for the agency's determination of whether it should be included in the EIR. (CEQA Guidelines § 15126.6(a).) A determination of actual feasibility is within the purview of decision-makers at the time of project approval. (CEQA Guidelines § 15091(a)(3).)

Section 4.3.3 of Appendix 1 concludes that Avoidance Alternative #1 is likely to be technically feasible since it could likely be constructed, and there are no regulatory obstructions to permitting at the alternative site. There would be potential legal feasi-

bility issues with the reservation rights on the energy company parcel, because approval would be required by the Palo Verde Land and Water Company.

Independent of the determination of feasibility, the timing of construction of the alternative is considered in the SEIR in the evaluation of its ability to meet project objectives. Furthermore, Section 4.3.3 in SEIR Appendix 1 concludes that it is uncertain whether Avoidance Alternative #1 could meet the third objective related to meeting SCE's online date. However, the State CEQA Guidelines require the consideration of alternatives capable of eliminating or reducing significant environmental effects "even if these alternatives would impede to some degree the attainment of project objectives" (Section 15126.6(b)). Therefore, each alternative must meet most, but not all, of the project objectives, and for this reason Avoidance Alternative #1 was carried forward for full evaluation in Section D of the SEIR.

As required under CEQA, the comparison of alternatives compares environmental impacts, but does not reevaluate feasibility or the ability of alternatives to meet project objectives. However, following evaluation of the alternative sites, Section F.4.1 of the SEIR states in the conclusion of the Environmentally Superior Alternative that "the Southern Alternative would also be environmentally superior should Avoidance Alternative #1 create significant delays that would affect its ability to meet project objectives and be feasible."

As concluded in *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, quoted at length below, decision-makers will address the issue of feasibility again when making a decision on whether to approve the project, i.e., they will make a determination as to whether an alternative analyzed in the EIR is *actually* feasible. Significantly different considerations may come into play when determining actual feasibility than during the initial determination of whether an alternative should be included in an EIR:

"The issue of feasibility arises at two different junctures: (1) in the assessment of alternatives in the EIR and (2) during the agency's later consideration of whether to approve the project. (See *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477, 489 (*Mira Mar*).) But 'differing factors come into play at each stage.' (Kostka & Zischke, Practice under the Cal. Environmental Quality Act (Cont.Ed.Bar 2d ed. 2009) § 15.9, p. 740.) For the first phase – inclusion in the EIR – the standard is whether the alternative is potentially feasible. (*Mira Mar*, at p. 489; Guidelines, § 15126.6, subd. (a).) By contrast, at the second phase – the final decision on project approval – the decision-making body evaluates whether the alternatives are actually feasible. (See Guidelines, § 15091, subd. (a)(3).) At that juncture, the decision-makers may reject as infeasible alternatives that were identified in the EIR as potentially feasible. (*Mira Mar*, at p. 489.)

". . . Rejection by the decision-makers does not undermine the validity of the EIR's alternatives analysis. (*Mira Mar*, supra, 119 Cal.App.4th at p. 489 [dismissing the argument that the 'alternatives should not have been included' in the EIR 'because the City ultimately rejected them as not feasible'].) Like mitigation measures, potentially feasible alternatives 'are suggestions which may or may not be adopted by the decisionmakers.' (*No Slo Transit, Inc. v. City of Long Beach* (1987) 197 Cal.App.3d 241, 256; accord, *Native Sun/Lyon Communities v. City of Escondido* (1993) 15

Cal.App.892, 908, questioned on another point in *Griset v. Fair Political Practices Com.* (2001) 25 Cal.4th 688, 698.)

“. . . When it comes time to decide on project approval, the public agency’s decision-making body evaluates whether the alternatives are *actually* feasible. (*Mira Mar*, supra, 119 Cal.App.4th at p. 489; Guidelines, § 15091, subd. (a)(3).) While staff may draft the necessary findings, the decision-making body is responsible for the ultimate determination of feasibility, which cannot be delegated. (Guidelines, § 15025, subd. (b)(2); see *id.*, § 15091, subd. (a)(3).)

“At this final stage of project approval, the ‘agency must necessarily weigh and balance its pros and cons taking account of a broad range of factors.’ (Kostka & Zischke, Practice under the Cal. Environmental Quality Act, supra, § 17.29, p. 824.) These considerations include ‘economic, environmental, social, and technological factors.’ (§ 21061.1; § 21081, subd. (a)(3); Guidelines, §§ 15364, 15091, subd. (a)(3).) ‘After weighing these factors, an agency may conclude that a mitigation measure or alternative is impractical or undesirable from a policy standpoint and reject it as infeasible on that ground.’ (Kostka & Zischke, at p. 824.) Broader considerations of policy thus come into play when the decision-making body is considering actual feasibility than when the EIR preparer is assessing potential feasibility of the alternatives.”

Therefore, when considering whether to approve the project, and whether to reject alternatives as infeasible, the decision-makers will weigh factors that could affect feasibility from a CPUC policy standpoint, and will consider delay issues associated with landowner negotiations, eminent domain proceedings, substation and gen-tie re-design, deed restrictions, etc., that could affect the construction of Avoidance Alternative #1 in a timely fashion. See Response to Comment B05-4 regarding the comparison of alternatives and the Environmentally Superior Alternative.

B05-6 The commenter states that the Southern Alternative would achieve Project Objective #1, to provide transmission access to potential future renewable resources. This statement is in accordance with the discussion of project objectives in Section 4.6.2 of SEIR Appendix 1. Please refer to Response to Comment B05-5 regarding the ability of alternatives to meet the project objectives and Response to Comment B05-4 regarding the Environmentally Superior Alternative.

B05-7 The commenter states that the Southern Alternative would achieve Project Objective #2, to help California meet its renewable energy goals. This statement is in accordance with the discussion of project objectives in Section 4.6.2 of SEIR Appendix 1. Please refer to Response to Comment B05-5 regarding the ability of alternatives to meet the project objectives and Response to Comment B05-4 regarding the Environmentally Superior Alternative.

B05-8 The commenter states that the Southern Alternative would achieve Project Objective #3, to complete substation construction in a timely fashion to interconnect with generation tie-lines from BSPP and GSEP by the LGIA target dates. This statement is in accordance to the discussion of project objectives in Section 4.6.2 of SEIR Appendix 1. Please refer to Response to Comment B05-5 regarding the ability of alternatives to meet the project objectives and Response to Comment B05-4 regarding the Environmentally Superior Alternative. See also Response to Comment D01-7 regarding substation engi-

neering and modifications made to the description of the Southern Alternative in Appendix 1 of the Final SEIR.

- B05-9 The commenter states that the discussion of the feasibility of Avoidance Alternative 1 fails to include a discussion of the issues of site control and delay. Please refer to Response to Comment B05-5 regarding the discussion of construction timing related to the feasibility and ability to meet project objectives of Avoidance Alternative #1.
- B05-10 The commenter disagrees with the Draft SEIR's conclusion that Avoidance Alternative #1 is feasible. As discussed previously, alternatives are included for analysis in an EIR based on a determination by the agency that they are potentially feasible. The ultimate determination of feasibility is to be made by the decision-making body at the time the project is approved. Please refer to Response to Comment B05-5 regarding potential delays associated with Avoidance Alternative #1 and the determination of feasibility of Avoidance Alternative #1 in the SEIR. See Response to Comment B05-4 for a comparison of Avoidance Alternative #1 and the Southern Alternative, as well as a discussion of the Environmentally Superior Alternative.

Comment Set B06 Center for Biological Diversity



CENTER for BIOLOGICAL DIVERSITY

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via email and Federal Express Overnight Delivery

April 8, 2011

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RE: Draft Supplemental Environmental Impact Report – Southern California Edison Company’s Application for Devers-Palo Verde No. 2 Transmission Line Project and Colorado River Substation Expansion, California SCH No. 2005101104

Dear Ms. Blanchard,

These comments are submitted on behalf of the Center for Biological Diversity’s 320,000 staff, members and on-line activists in California and throughout the United States regarding the Draft Environmental Impact Report (DSEIR) for Southern California Edison Company’s Application for Devers-Palo Verde No. 2 Transmission Line Project and Colorado River Substation Expansion, California SCH No. 2005101104.

The proposed project will support the approved renewable energy projects in the adjacent areas, which are a critical component of efforts to reduce greenhouse gas emissions, avoid the worst consequences of global warming, and to assist California in meeting emission reductions set by AB 32 and Executive Orders S-03-05 and S-21-09. The Center for Biological Diversity strongly supports the development of renewable energy production, and the generation of electricity from solar power, in particular. However, like any project, proposed facilities to move the solar power to the energy consumers should be thoughtfully planned to minimize impacts to the environment. In particular, substation and transmission projects should avoid impacts to sensitive species and habitats. Additionally alternatives should be considered for development of renewable energy in proximity to the areas of electricity end-use in order to reduce the need for extensive new transmission corridors, far-flung substations and the efficiency loss associated with extended energy transmission. Only by maintaining the highest environmental standards with regard to local impacts, and effects on species and habitat, can renewable energy production be truly sustainable.

The DSEIR is deficient in several ways and fails to provide the level of detailed data and information about resources and impacts or proposed mitigation and minimization measure that

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is needed. Nonetheless, even based on the information provided it is clear that constructing the proposed substation at the proposed project site has unacceptable impacts and that there are several alternatives that would reduce the impacts of the proposed substation project to sensitive biological resources including the Mojave fringe-toed lizard and its sand habitat. Because there are feasible alternative sites that would reduce or eliminate impacts to sensitive resources, the CPUC cannot approve the proposed substation at the proposed site.

B06-1 cont.

The DSEIR Fails to Comply with CEQA.

A. The DSEIR Does Not Adequately Describe Environmental Baseline

The establishment of the baseline conditions of the affected environment is a practical requirement of the CEQA process. Similarly, without a clear understanding of the current status of these public lands CPUC cannot make a rational decision regarding proposed project and alternatives. The DSEIR fails to provide adequate baseline information and description of the environmental setting in many areas including in particular the status of rare plants, animals and communities including desert tortoise, burrowing owls, badgers, kit foxes and rare plants, particularly in the Avoidance Alternatives and Southern impact analyses.

The baseline descriptions in the DSEIR are inadequate particularly for the areas where surveys were a single season, a day, or not performed at all. As discussed below, because of the deficiencies of the baseline data for the proposed project area, the DSEIR fails to adequately describe the environmental baseline. Many of the rare and common but essential species and habitats have incomplete and/or vague on-site descriptions that make determining the proposed project's impacts difficult at best. Some of the rare species/habitats baseline conditions are totally absent and as a result no impact assessment is provided either. More documentation is required to fully identify the baseline conditions of the site, and that baseline needs to be used to evaluate the impacts of the proposed project or any alternatives.

B. Failure to Adequately Identify and Analyze Direct and Indirect Impacts to Biological Resources

The DSEIR fails to adequately analyze the direct, indirect, and cumulative impacts of the proposed project on the environment. The CPUC must ensure adequate environmental information is gathered and that the environmental impacts of a proposed project are fully identified and analyzed before it is approved. "To conclude otherwise would place the burden of producing relevant environmental data on the public rather than the agency and would allow the agency to avoid an attack on the adequacy of the information contained in the report simply by excluding such information." (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal. App. 3d 692, 724.) Environmental review documentation

B06-2

is more than a set of technical hurdles for agencies and developers to overcome. [Its] function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those

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consequences have been taken into account.” (*Laurel Heights I, supra*, 47 Cal.3d at pp. 391-392.) For the [environmental review documentation] to serve these goals it must present information in such a manner that the foreseeable impacts of pursuing the project can actually be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made.

B06-2 cont.

(*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-450.) The environmental review documents must “contain facts and analysis, not just the agency's bare conclusions or opinions.” (*Laurel Heights Improvement Assn. v. Regents* (1989) 47 Cal. 3d 376, 404 [and cases cited therein].) The environmental review documents “must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project.” (*Id.*)

The project as proposed is located in the middle of a large and critical sand transport system that originates in Joshua Tree National Park and terminates east of the proposed substation project site at the boundary of the agricultural area near Blythe, California¹. This sand transport corridor is essential to maintaining sand dunes, which are unique desert landscape features and provide habitat for a suite of rare species that are evolutionarily adapted to exploiting the constantly shifting sands, including fringed-toed lizards and endemic insects and plants. Dunes in the deserts typically form as a result of eolian (wind-blown) processes, where sand particles are moved with the prevailing winds. These eolian processes form sand transport corridors. Blockage of even a portion of the sand transport corridors will impact the “downstream” dunes systems upon which rare species rely and may eventually eliminate them.

B06-3

As detailed below, there are many inadequacies in the DSEIR. For example, the Center failed to find a quantitative analysis of impacts other than the number of acres that will be impacted. The DSEIR fails to adequately identify the on-the-ground impacts to connectivity, and species essential habitat types (breeding/foraging etc.), leaving the public and decisionmakers clueless as to true nature of the impacts. Because of the failure to identify the true impacts, it is impossible to evaluate if the proposed mitigation would be adequate. In addition, many of the mitigation measures for the species listed in Table C.6-10 involve implementing biological surveys. Surveys do not mitigate for impacts, but instead should be the basis for analyzing the impacts. Therefore, they should not be included in the mitigation scenario.

B06-4

Because the DSEIR is deficient as an informational document the CPUC has failed to comply with CEQA. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 717-718 [holding that a misleading impact analysis based on erroneous information rendered an EIR insufficient as an informational document]; *Environmental Planning & Information Council v. County of El Dorado* (1982) 131 Cal.App.3d 350, 357-58 [where baseline was inaccurate “comparisons utilized in the EIRs can only mislead the public as to the reality of

B06-5

¹ Muhs et al. 2003

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the impacts and subvert full consideration of the actual environmental impacts which would result.”].)

B06-5 cont.

Under CEQA, the CPUC must look at reasonable alternatives to avoid impacts in the DSEIR and the DSEIR does provide alternatives but due to the lack of data and information on many resources it is impossible to fully evaluate and compare the alternatives provided.

B06-6

The DSEIR also fails to provide needed information regarding proposed mitigation and minimization measures which again may be a result of the lack of adequate data and information. However, even in those cases where the extent of impacts may be somewhat uncertain due to the complexity of the issues, the CPUC is not relieved of its responsibility under CEQA to discuss mitigation of reasonably likely impacts at the outset.

B06-7

Many of the plans that are identified in the DSEIR and proposed as measures to minimize or mitigate impacts are simply not provided in the DSEIR for public review. For example, the Habitat Restoration/Compensation Plan (MM B-1a from the DPV2 EIR/S) is not provided in this DSEIR. These types of plans are key for minimization and mitigation, yet it is impossible for the public and decision makers to evaluate the adequacy of the plan(s) because they are not available. While the Center supports the development and implementation of these plans in general, in the absence of even a draft plan being presented in the DSEIR, it is impossible to evaluate or determine the efficacy of proposed minimization and mitigation to actually adequately mitigate impacts. The CPUC has the responsibility to ensure that mitigation measures are adequate and implemented and without a well defined plan, there is no ability to ensure that the mitigation measures are adequate or are fully implemented. Unfortunately, studies of mitigation compliance have shown that mitigation is often not fully implemented.² Making all of the plans available as part of the public process is important to assure the public that their public resources are being protected – without public disclosure of these plans during the process there is no way to evaluate whether the CPUC has put in place adequate plans to prevent degradation of our natural heritage, clean air and water. The CPUC must supply these essential plans as part of the public process that enables public input on the plethora of “mitigation” plans that are being proposed as conditions of this proposed substation project.

1. *Mojave Fringe-toed Lizard*

B06-8

The DSEIR acknowledges that proposed project sits directly in the most active area of the sand transport corridor (DSEIR at Figure ES-3). Clearly the project footprint needs to be moved to avoid this important sand transport corridor and minimize the impacts to this rare habitat type. The sand dunes and sand transport corridor in this area is the southern most range of the Mojave fringe-toed lizard. The population in the southern most part of its range is unique because it survives at the lowest elevation and the least amount of precipitation, adaptations that will serve the species well in light of global climate change³. The northern range – Amargosa River Distinct Population Segment of the Mojave fringe-toed lizard (*Uma scoparia*) (MFTL) is already petitioned for Endangered Species Act protection due to threats from off-road vehicles and other

2 Moilen et al. 2009, Norton 2009, Ambrose 2000

3 Murphy et al. 2006

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factors⁴. Further impacts to the sand habitat and sand transport corridors in the range of the lizard may require additional Endangered Species Act protection for this species.

B06-8 cont.

While Avoidance Alternatives 1-3 and the Southern Alternative all achieve the goal of moving the project out of the active sand transport corridor and will likely reduce impacts to MFTL. Unfortunately, the analysis is not sufficient or clear regarding potential impacts on those alternative sites to other species (for example see next section on desert tortoise). We would generally support an alternative that removes impacts to the sand transport corridor, but absent a full analysis of the impacts of the proposed substation construction at the alternative sites to species that do not rely on the sand transport corridor, it is impossible to tell which alternative is most environmentally benign and does the best job of avoiding impacts to sensitive species.

2. *Desert Tortoise*

B06-9

The desert tortoise has lived in the western deserts for tens of thousands of years. In the 1970's their populations were noted to decline. Subsequently, the species was listed as threatened by the State of California in 1989 and by the U.S. Fish and Wildlife Service in 1990, which then issued a Recovery Plan for the tortoise in 1994. The DSEIR incorrectly identifies the tortoise in the project area as Sonoran desert tortoise (DSEIR at pg. D-24 and D-25), when actually they are part of the Mojave population and protected by both state and federal Endangered Species Acts. The U.S. Fish and Wildlife Service is in the process of updating the Recovery Plan, and a Draft Updated Recovery Plan was issued in 2008, however it has not been finalized to date. Current data indicate a continued decline across the range of the listed species⁵ despite its protected status and recovery actions.

The original and draft updated Recovery Plans both recognize uniqueness in desert tortoise populations in California. This particular subpopulation of tortoise at the proposed project site is part of the Eastern Colorado Recovery unit⁶. Recent population genetics studies⁷ have further reconfirmed 1994 Recovery Plan conclusions - the Eastern Colorado Recovery unit was one of the most genetically unique recovery units. While the proposed project site and alternatives sites may have low desert tortoise densities, this particular recovery unit has also been documented to have the second highest declines in population over the last two years – 37% decline⁸. The DSEIR fails to identify the number of desert tortoise that would be affected by the project or the alternatives. It also fails to identify and consider the localized impact to this recovery unit that is already in steep decline.

⁴ http://www.biologicaldiversity.org/species/reptiles/Mojave_fringe-toed_lizard/endangered_species_act_profile.html

⁵

http://www.fws.gov/nevada/desert_tortoise/documents/reports/2007_Rangewide_Desert_Tortoise_Population_Monitoring.pdf

⁶ http://ecos.fws.gov/docs/recovery_plans/1994/940628.pdf

⁷ Murphy et al. 2007

⁸

http://www.fws.gov/nevada/desert_tortoise/documents/reports/2007_Rangewide_Desert_Tortoise_Population_Monitoring.pdf

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The DSEIR fails to provide much needed information regarding the desert tortoise including the number of burrows and the number of live tortoises documented for the proposed project or alternatives, nor does it present the estimated number of desert tortoises on the project site or alternative sites. While protocol level desert tortoise surveys were done on some of the project area (DSEIR at pg. D-5), the results are not presented. Protocol level surveys do not appear to have been done on the Avoidance or Southern Alternatives. Therefore it is impossible to determine the impacts to desert tortoise from the proposed project or alternatives. Even where protocol level surveys are performed using USFWS methodologies for estimating the number of desert tortoise on the proposed project site, it is important to understand that tortoise numbers on site can be significantly underestimated using these methods. Recent experience at the ISEGS project site, which utilized the same type of surveys and estimation methodology, the numbers of desert tortoise on the whole three-phase site were estimated to be 38. However more recent estimates from BLM conclude that up to 140 desert tortoise could occur on site⁹. That site in Ivanpah Valley is also located in BLM designated “Category 3” habitat, as is this proposed project.

B06-9 cont.

No avoidance strategies or translocation/relocation efforts are discussed for desert tortoise in the DSEIR. No mechanisms are included to assure that any and all mitigation acquisitions will be conserved in perpetuity for the conservation of the desert tortoise as required under state law. If those acquisitions are within existing Desert Wildlife Management Areas (DWMAs), higher levels of protection than are currently in place for DWMAs need to be put in place.

B06-10

The 1:1 mitigation ratio of desert tortoise habitat outside of critical habitat is inadequate to mitigate for habitat destruction, if indeed the project or alternatives are occupied habitat in which case the ratio should be far higher.¹⁰ Mitigation presumes that acquisition will be appropriate tortoise habitat (occupied or unoccupied) which is currently existing and providing benefits to the species, to off-set the elimination of the proposed project site. However, this strategy is still *a net loss of habitat* to the desert tortoise, as currently they may be using or could use both the mitigation site and the proposed project site. Therefore, in order to aid in recovery of this declining species, at a minimum a 3:1 mitigation ratio should be required as mitigation for the total elimination of occupied desert tortoise habitat on the proposed project site.

B06-11

If tortoises or MFTL are relocated or translocated then the relocation and/or translocation areas need to be secured for conservation in perpetuity, to preclude moving the animals subsequently if additional projects move forward on the relocation or translocation site(s).

B06-12

3. *Burrowing owl*

The DSEIR notes that burrowing owls occur on the project site (DSEIR at D-17). However the DSEIR fails to mention them again in the context of the proposed project or alternatives’ impact analysis.

B06-13

9 BLM letter dated 2 14 2011 reinitiating consultation; FWS letter dated 3 15 2011; BLM email dated 3 25 2011 estimating 140 tortoises on site; FWS letter dated 3 28 2011: *See also* article http://www.pe.com/localnews/stories/PE_News_Local_D_tortoises31.2893802.html

10 Moilanen et al 2009, Norton 2008

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Preliminary results from the 2006-7 statewide burrowing owl census identified that the central western interior area actually harbors few Western burrowing owls.¹¹ The evidence of on-site burrowing owls suggests that the proposed project site is good habitat for burrowing owls in an area that generally does not support many burrowing owls. The stronghold for burrowing owls in California – the Imperial Valley – has had a recently documented decline of 27% in the past 2 years¹², resulting in an even more dire state for burrowing owls in California. Because burrowing owls are in decline throughout California, and now their “stronghold” is documented to be declining severely, the burrowing owls on this proposed project site (and on other renewable energy projects) become even more important to species conservation efforts.

B06-13 cont.

While “passive relocation” does minimize immediate direct take of burrowing owls, ultimately the burrowing owls’ available habitat is reduced, and “relocated” birds are forced to compete for resources with other resident burrowing owls and may move into less suitable habitat, ultimately resulting in “take”. No data is available on the fate of passively relocated birds, therefore it is unclear if the birds survive or not.

Mean burrowing owl foraging territories are 242 hectares in size, although foraging territories for owl in heavily cultivated areas is only 35 hectares¹³. Mitigation is proposed as habitat acquisition. Adequate acquisition of burrowing owl habitat needs to be acquired, calculated using the mean foraging territory size times the number of owls. Also using the average foraging territory size for mitigation calculations may not accurately predict the carrying capacity of the mitigation lands. It may be that in this arid region of California, the acres necessary to support a burrowing owl is much larger. While CDFG provided mitigation guidance in 2003, that guidance is now out of date in light of identified population declines¹⁴, a more thorough census of burrowing owls throughout the state¹⁵ and additional research on the species habitat¹⁶. Because the long-term persistence of burrowing owls lie in their ability to utilize natural landscapes, not human-created ones and the carrying capacity is tied to habitat quality, mitigation must include lands that are native habitats on undisturbed lands, not cultivated lands, which are subject to the whims of land use changes.

4. *Rare Plant Species and Communities*

B06-14

In addition to the rare psammophytic vegetation community, which was never actually identified in the DSEIR despite the occurrence of the sand transport corridor, numerous rare plants were also identified on the proposed project site and alternatives. Minimization or mitigation strategy for these unique California species needs to be more clearly identified. Will seed collections occur? Will conservation lands contain adequate seed bank for these species? Absent this information the DSEIR fails to meet CEQA standards.

11 IBP 2008

12 Manning 2009.

13 Klute et al. 2003

14 Manning 2009

15 Wilkerson and Siegel 2010

16 Klute et al. 2003

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5. *Insects*

The DSEIR fails to address insects on the proposed project site. In fact no surveys or evaluation of rare or common insects are included in the DSEIR. Sandy habitats are notorious for supporting endemic insects, typically narrow habitat specialists¹⁷. These data must be included along with an analysis of rare insects on the proposed project site and alternatives.

B06-15

C. The DSEIR Fails to Adequately Identify and Analyze Habitat Connectivity Fragmentation, Augmentation of Predators and Introduction of Exotic Species.

B06-16

The habitat fragmentation, loss of connectivity for terrestrial wildlife, and augmentation of predators and introduction of invasive weed species associated with the proposed project in the proposed location is not apparent in the DSEIR.

D. The Analysis of Cumulative Impacts in the DSEIR Is Inadequate

B06-17

Cumulative impacts analysis is a critical part of any CEQA analysis. [t]he cumulative impact analysis must be substantively meaningful. “A cumulative impact analysis which understates information concerning the severity and significance of cumulative impacts impedes meaningful public discussion and skews the decisionmaker's perspective concerning the environmental consequences of the project, the necessity for mitigation measures, and the appropriateness of project approval. [Citation.] [Citation.] [¶] While technical perfection in a cumulative impact analysis is not required, courts have looked for ‘adequacy, completeness, and a good faith effort at full disclosure.’ (Cal. Code Regs., tit. 14, § 15151.) "A good faith effort to comply with a statute resulting in the production of information is not the same, however, as an absolute failure to comply resulting in the omission of relevant information." [Citation.]” (*Mountain Lion Coalition v. Fish & Game Comm.* (1989) 214 Cal. App. 3d 1043, 1051-52.) (*Joy Road Area Forest and Watershed Assoc. v. Cal. Dept. of Forestry* (2006) 142 Cal. App. 4th 656, 676.)

Where, as here, the impacts of a project are “cumulatively considerable” the agency must also examine alternatives that would avoid those impacts and mitigation measures for those impacts. (CEQA Guidelines §15130(b)(3).) In some cases the potential cumulative impacts will be best addressed by compliance with existing regulations (such as land use plans, conservation plans, or clean air act standards), in other cases avoidance and mitigation measures will be site specific, and in some cases new regulations or ordinances may be needed to address cumulative concerns. Just because a supplemental evaluation in the DSEIR is being prepared after the full project analysis does not mean that the cumulative impacts of the project as a whole should not be addressed in the DSEIR.

E. The DSEIR’s Alternatives Analysis is Inadequate

B06-18

Under CEQA, a lead agency may not approve a project if there are feasible alternatives that would avoid or lessen its significant environmental effects. (Public Resources Code §§

¹⁷ Dunn 2005.

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21002, 21002.1(b).) To this end, an EIR is required to consider a range of potentially feasible alternatives to a project, or to the location of a project, that would feasibly attain most of the project's basic objectives while avoiding or substantially lessening any of the project's significant environmental impacts. (*Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437, 1456.)

B06-18 cont.

The alternatives analysis does provide some range of alternatives that appear to avoid many of the impacts of construction at the proposed substation site however is inadequate even with the inclusion of the alternative site locations, because the level of detail on the resources is not complete, and therefore the analysis of avoidance, minimization and impact is not comprehensive.

Conclusion

As stated above the Center generally supports an alternative that moves the proposed project outside of the sand transport corridor. However, the level of detail on the biological resources occurring on the Avoidance and Southern Alternatives fail to provide enough information on which to do an adequate analysis.

B06-19

Thank you for your consideration of these comments. In light of the many omissions in the environmental review to date, we urge the CPUC revise and recirculate the DSEIR for public review to provide additional data and information along with detailed plans for mitigation and minimization of impact that cannot be avoided by the choice of a feasible alternative. Please feel free to contact us if you have any questions about these comments or the documents provided.

Sincerely,

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Comment Set B06, cont. Center for Biological Diversity

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Comment Set B06, cont.
Center for Biological Diversity

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Responses to Comment Set B06 Center for Biological Diversity (CBD)

B06-1 The commenter provides introductory remarks suggesting that alternatives exist that would reduce impacts of the proposed substation to biological resources, including MFTL and sand dune habitat. However, the commenter does not identify or recommend a specific alternative. The Draft SEIR evaluates a reasonable range of alternatives. As discussed in Response to Comment B04-3, an EIR is required to consider alternatives that avoid or substantially lessen the project's significant environmental impacts while attaining most of the project objectives. (CEQA Guidelines § 15126.6(a).) To this end, the Draft SEIR identified and evaluated alternatives which would, in part, reduce the significant and unmitigable (Class I) impacts of the proposed project to MFTL from sand transport blockage, while providing local interconnection for the BSPP and GSEP.

The description of the environmental setting (baseline) is adequate. The environmental setting descriptions in these documents are based on expert review and analysis of databases and relevant literature and reconnaissance and protocol-level biological resources surveys that were performed in the Proposed Project area. In addition, new biological resource data has been collected at the proposed CRS expansion site and the vicinity. Please see General Response GR-1 (Further Studies and Surveys are Not Required in Order to Adequately Assess Impacts of Alternatives) for additional discussion regarding adequacy of the Supplemental EIR environmental baseline. As explained in General Response GR-2 (All Impacts to Biological Resources Were Adequately Assessed in Both the Prior DPV2 EIR/EIS and/or the Supplemental EIR), impacts of the proposed CRS expansion that would not be "substantially more severe" than the significant impacts of construction and operation of the original 44-acre CRS (Midpoint Substation) do not require further analysis.

B06-2 The Final Supplemental EIR adequately identifies and analyzes direct, indirect and cumulative impacts to biological resources and provides mitigation, as necessary, to reduce the severity of significant adverse impacts. The Final Supplemental EIR biological resources analysis is based on a review of environmental analyses and survey results pertaining to the biological resources of the project area and vicinity, including recently prepared environmental review documents that are incorporated by reference, as described in Section A.4.2 of the Final Supplemental EIR

As described in Section B.1 of the Final Supplemental EIR, the Colorado River Substation was identified as the Midpoint-DSW Substation as part of the Desert Southwest Transmission Project Alternative in the Final EIR/EIS for the DPV2 project. The Midpoint-DSW Substation was described in Section C.4.4 (Desert Southwest Transmission Project Alternative) and addressed in Section E.2.1 (Proposed Project vs. Desert Southwest Transmission Project Alternative) of the DPV2 Final EIR/EIS (October 2006). The substation site, including mitigation measures to reduce biological resources impacts, was approved by the CPUC in November 2009 as part of the Decision (D.)09-11-007 adopting a Petition for Modification of D.07-01-040 to construct the DPV2 California-only portion.

Section B of the Final Supplemental EIR provides a detailed description of the proposed CRS Expansion Project, including facilities and equipment, construction methods and schedule, and operations. Section B.2 provides a description of the CRS as it was ana-

lyzed in the original DPV2 Final EIR/EIS (2006) and Section B.3 describes the CRS Expansion. The potential environmental effects of the project elements are analyzed in Section D (see Section D.2 for biological resources).

In addition, Section B.4 describes the solar projects (BSPP and GSEP) that are considered to be “connected actions” to the substation expansion. Impacts related to the “connected actions” are analyzed and summarized for each environmental discipline, including biological resources, in Section D of the Final Supplemental EIR, and the analysis from the CEQA and NEPA documents prepared for these projects is incorporated by reference in the Supplemental EIR. Therefore, the impacts of the solar facilities will be considered by the CPUC in its determination of whether to approve the proposed CRS expansion.

The Final Supplemental EIR also adequately analyzes cumulative impacts. Cumulative impacts are evaluated in Section E.3 of the Final Supplemental EIR; cumulative impacts to biological resources are evaluated in Section E.3.1. The analysis focuses on whether there are any new significant cumulative impacts or substantially more severe cumulative impacts than were identified in the DPV2 Final EIR/EIS. (Draft SEIR, p. E-1.) As discussed in Section E.3.1.1., the methodology for analysis uses a quantitative geographic information system (GIS) analysis, developed by the CEC, of direct cumulative effects to habitat loss from existing and foreseeable future projects, and a qualitative analysis for resources for which an extensive quantitative analysis is infeasible because data does not exist and cannot be reliably developed in a reasonable time frame or is unnecessary in consideration of the severity of the cumulative impact. (See CEQA Guidelines § 15130.) The discussion and analysis adequately evaluates cumulative impacts. Please note that discussion of cumulative impacts need not provide as great detail as is provided for the effects attributable to the project alone. (CEQA Guidelines § 15130(b).)

B06-3

The location of the proposed substation expansion within a sand transport corridor, and the effects on biological resources and sand transport is discussed in the Draft SEIR in Section D.2 and in Appendix 3 (Geomorphologic Assessment and Sand Transport Impacts Analysis of the Colorado River Substation). Analysis adequately addresses impacts to special-status species that would result from impacts to the sand transport corridor. Please note that although special-status species such as MFTL include insects in their diet, no special-status insect species were identified through expert review and analysis of databases and relevant literature and reconnaissance and protocol-level biological resources surveys. Please see Response to Comment B06-15 for additional discussion.

Loss of connectivity for wildlife is adequately addressed in the DPV2 Final EIR/EIS (2006) for species other than MFTL. Refer to General Response GR-2 regarding the scope of the biological resources analysis in the SEIR. Regarding MFTL, the SEIR identifies range contraction as a significant and unmitigable impact; effectively, range contraction is an elimination of connectivity. Mitigation Measure B-9j requires that compensatory habitat be provided within the Chuckwalla Valley with potential to contribute to Mojave fringe-toed lizard habitat connectivity and build linkages between known populations of Mojave fringe-toed lizards.

The Draft SEIR adequately analyzes impacts to all constituent habitat elements of the subject sensitive resources, including breeding and foraging habitat, providing decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. Such analysis need not be exhaustive.

(CEQA Guidelines § 15151.) Analysis is appropriate based on literature and database review, data from biological resource surveys from multiple sources, and expert review and analysis. Please see General Response GR-1 for additional discussion. Refer to General Response GR-2 for an explanation of why a focused analysis of target biological resources is appropriate for this SEIR.

B06-4 The commenter states that “mitigation measures for the species listed in Table C.6-10 involve implementing biological surveys.” The Draft SEIR does not contain a table numbered C.6-10. Regardless, a pre-construction survey is a standard component of impact avoidance, minimization and mitigation measures. Pre-construction surveys are necessary in this context to delineate areas that must be avoided in compliance with mitigation. (See e.g., Mitigation Measures B-8b.) Such areas are appropriately marked in advance of disturbance activities. Pre-construction surveys may also be used to avoid impacts to individuals, e.g., Mitigation Measures B-9g(rev), and B-9d(rev). As discussed above in Response to Comment B06-1, environmental baseline surveys are adequate for assessment of impacts. Refer also to General Response GR-1 regarding adequacy of the SEIR environmental baseline.

B06-5 The commenter states that the Draft Supplemental EIR is deficient as an informational document and thus the CPUC has failed to comply with CEQA. Please refer to Responses to Comment B06-2 through B06-4 regarding the adequacy of the Final Supplemental EIR’s impact analysis and mitigation. The Draft Supplemental EIR is adequate as an informational document and complies with CEQA.

B06-6 The commenter states that due to lack of data and information on many resources it is impossible to fully evaluated and compare the alternative sites. As discussed in General Response GR-2, the Draft SEIR contains only the information necessary to make the previous EIR adequate for the project as revised. Because the DPV2 EIR/EIS adequately addressed impacts to numerous species, the Supplemental EIR is not required to, and does not, address impacts to such species in detail. However, the SEIR adequately compares the environmental impacts of the various alternatives on resources that would be impacted by either the project as proposed or the alternatives. Please refer to General Response GR-1 for discussion regarding the adequacy of surveys.

As stated in Section F.4.1 of the Final Supplemental EIR, the primary impact differences between the proposed CRS site and the alternative sites result from shifting the substation site to minimize impacts to an active sand transport corridor (see discussion in Section C.2 of the Final Supplemental EIR). Therefore, for several environmental disciplines, the impacts of the alternative sites would be similar to those of the CRS expansion, because the peak construction activities would likely be the same and because five site locations are in close geographic proximity. These disciplines are not individually analyzed in the Final Supplemental EIR for the reasons explained in Section A.2.2 of the Final Supplemental EIR, and no environmental preference is identified in the comparison of alternatives in Section F with respect to these disciplines. This approach is permissible under CEQA, which limits the discussion of impacts from alternatives to those that are “in addition to those caused by the project as proposed” and specifies that such impacts shall be discussed “in less detail than the significant effects of the project as proposed.” (CEQA Guidelines § 15126.6(d).) The EIR’s discussion of alternatives includes sufficient

information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project.

B06-7

The commenter states that many of the plans identified in the Draft Supplemental EIR and proposed as measures are not provided in the Draft Supplemental EIR. As described in Section B.5 of the Final Supplemental EIR, all mitigation measures previously addressed and approved of in the DPV2 Final EIR/EIS (2006) are considered part of the proposed CRS Expansion Project and would be implemented as described in the DPV2 Final EIR/EIS. For the purposes of assessing potential impacts of the CRS expansion, approved APMs and mitigation measures are referenced where appropriate in Section C of the Supplemental EIR, and new mitigation measures are introduced in instances where existing mitigation would not be sufficient to reduce impacts to a less than significant level. The full text of all applicable measures is included in the Final Supplemental EIR.

The Draft Supplemental EIR also identified mitigation measures that require the preparation of a more precise mitigation plan after certification of the EIR, which is acceptable under CEQA when practical considerations make it difficult to develop the plan at this stage of the planning process and the agency “commit[s] itself to eventually devising measures that will satisfy specific performance criteria articulated at the time of project approval.” (*Sacramento Old City Association v. City Council of Sacramento* (1991) 229 Cal.App.3d 1011, 1028-1029; see also *Defend the Bay v. City of Irvine* (2004) 15 Cal.Rptr.3d 176, 184-187.) See also CEQA Guidelines § 15123.4 (a) (1) (B), which provides that mitigation measures may specify performance standards that would mitigate the significant effect of the project and that may be accomplished in more than one specific way.

Specifically, the full text of Mitigation Measure B-1a (Prepare and implement a Habitat Restoration/Compensation Plan) was included under Impact B-7 for the Partial Avoidance Alternative in Section D.2.6 of the Draft Supplemental EIR. It has been added to the discussion for the proposed CRS in Section D.2.4 in the Final Supplemental EIR. This mitigation measure was also provided for public comment in the DPV2 Draft EIR/EIS and was modified in response to such comment in the Final DPV2 EIR/EIS, before it was approved by the CPUC as part of the DPV2 project (D.09-11-007). Mitigation Measure B-1a is intended to require restoration and/or compensation for multiple habitat types in various locations. The measure includes required techniques for minimizing the area of disturbance, restoring temporarily disturbed areas (hydroseeding, drill seeding, or other techniques subject to CPUC/BLM approval), and requires locally endemic seed mixes approved by CPUC/CDFG/FWS and BLM to be used. Performance standards for restoration areas have been added to MM B-1a as follows:

The following performance standards must be met by the end of the monitoring period: (a) at least 80% of the vegetative cover observed within the restoration area shall be native species that naturally occur in desert scrub habitats; (b) absolute cover and density of native plant species within the restoration areas shall equal at least 60% of the pre-disturbance or reference vegetation cover; and (c) the site shall have gone without irrigation or remedial planting for a minimum of three years prior to completion of monitoring.

These requirements provide sufficiently specific criteria to assure that native habitat conditions, appropriate for the impacted location, would be restored or created in tem-

porarily impacted areas. In addition, creation and restoration areas shall be monitored for a minimum of five years to assure that vegetation becomes established, and necessary remedial activities would be taken.

The finalized Habitat Restoration/Compensation Plan will provide greater detail, consistent with these requirements, and will be posted to the CPUC's project website as part of the Mitigation Monitoring Compliance and Reporting Program for the DPV2 Project (see <http://www.cpuc.ca.gov/Environment/info/aspen/dpv2/dpv2.htm>). Please also note that the SEIR includes other mitigation measures that would also mitigate impacts to habitat. For example, see new Mitigation Measure B-9j (Provide compensatory mitigation and restoration/enhancement of protected land for impacts to sand dune habitat). Please also refer to General Response GR-1 (Further Studies and Surveys are Not Required in Order to Adequately Assess Impacts of Alternatives) regarding the extent of surveys and studies included in the Final Supplemental EIR.

B06-8 The Draft SEIR includes sufficient information about each alternative to allow meaningful evaluation, analysis and comparison with the proposed substation. CEQA limits the discussion of impacts from alternatives to those that are "in addition to those caused by the project as proposed" and specifies that such impacts shall be discussed "in less detail than the significant effects of the project as proposed." (CEQA Guidelines § 15126.6(d)). Reconnaissance level surveys were conducted for each alternative to determine presence of and assess habitat suitability for special-status species and sensitive resources, including rare plants and desert tortoise. The description of the environmental baseline for the alternative sites in the SEIR is adequate to assess whether construction of the alternative sites would cause substantially greater environmental damage than the Proposed Project and allow for a comparative analysis of impacts between alternatives. Because the DPV2 EIR/EIS adequately addressed impacts to numerous species, the Supplemental EIR is not required to, and does not, address impacts to such species in detail. However, the EIR adequately compares the environmental impacts of the various alternatives on resources that would be impacted by either the project as proposed or the alternatives. Refer also to General Response GR-1 regarding adequacy of the SEIR environmental baseline.

B06-9 The commenter states that the Draft SEIR does not provide information on desert tortoise occurrence within the proposed project area and alternatives, and expresses skepticism regarding the adequacy of USFWS protocol surveys. Please see General Response GR-1 regarding the adequacy of studies and surveys. As discussed the Draft SEIR, life history and impacts to the majority of species identified in the project area were described in the DPV2 EIR/EIS. Impacts to desert tortoise were analyzed in the DPV2 Final EIR/EIS. Recent protocol survey results and expanded impact analysis are discussed in this response and presented in the Final SEIR for disclosure purposes and do not change the significance conclusions presented in the DPV2 EIR/EIS (2006). This information supports the findings that impacts to desert tortoise from CRS expansion would not be substantially more severe than the impacts identified in the DPV2 Final EIR/EIS. Refer also to General Response GR-2 regarding the scope of the SEIR. However, in response to this comment regarding information on desert tortoise occurrence, the SEIR environmental setting for desert tortoise has been updated to present the protocol survey results for the proposed CRS site, which also encompassed the Southern Alternative and Partial Avoidance Alternative, as well as portions of Avoidance Alternative #1 and

Avoidance Alternative #2. This information supports the findings that impacts to desert tortoise from CRS expansion would not be substantially more severe than the impacts identified in the DPV2 Final EIR/EIS. Section D.2.1, under Special Status Species, has been revised as follows:

- **Desert tortoise** (*Gopherus agassizii*; federally threatened, State threatened) occurs within the Mojave Desert region of Nevada, southern California, and the southwest corner of Utah and the Sonoran Desert region of Arizona and northern Mexico. Range wide, occupied habitats include desert alluvial fans, washes, canyon bottoms, rocky hillsides, and other steep terrain. Tortoises are most common in desert scrub, desert wash, and Joshua tree habitats, but occur in almost every desert habitat except on the most precipitous slopes. Friable soils, such as sand and fine gravel, are an important habitat component, particularly for burrow excavation and nesting. The presence of soil suitable for digging burrows is a limiting factor to desert tortoise distribution (USFWS, 1994a).

Desert tortoise populations have declined for several reasons, each of which tends to be exacerbated by the others and most of which are associated with human land uses and other human activities. Most threats identified in the 1980s as the basis for state and federal listing continue to affect tortoise populations today (USFWS, 2008). Habitat degradation and loss due to land use conversion, grazing, mining, energy development, and highway construction and expansion have all contributed to declining numbers and fragmentation of desert tortoise populations. Off-road vehicle use causes direct mortality from vehicle collision or crushed burrows and destruction of habitat. Desert tortoises are also vulnerable to vehicle collisions on roads and highways. Drought, habitat degradation, and associated weed invasion decrease nutrients available to desert tortoises in their food; this makes them susceptible to upper respiratory tract disease, and possibly other diseases, which can be fatal and is transmittable among populations (Jacobson, 1992). Tortoises also are vulnerable to predation by ravens, coyotes, and domestic and feral dogs. Infrastructure development and urbanization creates perch sites and food and water sources for ravens, and increases numbers of dogs, all of which elevate predation pressure on juvenile tortoises. Other threats include illegal collecting, vandalism, livestock grazing, feral burros, non-native plants, changes to natural fire regimes, and environmental contaminants (USFWS, 1994b). Habitat fragmentation and development can isolate tortoise populations, further increasing risk of disease and reducing genetic diversity. This range of threats can kill or indirectly affect desert tortoises and their habitat, but little is known about the relative contribution each threat makes to tortoise demography (Boarman, 2002, USFWS, 2008a). Current recovery planning focuses on expanding the knowledge of individual threats and places emphasis on understanding their multiple and combined effects on tortoise populations.

The USFWS published the Desert Tortoise (Mojave Population) Recovery Plan in 1994 and published a Draft Revised Recovery Plan for the Mojave Population of the Desert Tortoise in 2008. The Project site is located within the Eastern Colorado Recovery Unit (USFWS, 1994a), which would be merged with the adjacent Northern Colorado Recovery Unit upon finalization of the draft revised recovery plan. The new recovery unit will be referred to as the Colorado Desert Recovery Unit (USFWS, 2008). Within this recovery unit desert tortoises are found primarily in “well-developed washes, desert pave-

ments, piedmonts, and rocky slopes characterized by relatively species-rich succulent scrub, creosote bush scrub, and blue palo verde-ironwood-smoke tree communities” (USFWS, 1994a). Habitat within this recovery unit was described as being in excellent condition despite declines in tortoise densities over the past several decades; disturbance was estimated at less than 1.3 percent throughout (USFWS, 2005).

Protocol surveys for desert tortoise were conducted in spring 2010 of the proposed substation site and 1-mile surrounding area. Tortoise sign was not observed within the proposed substation site, but the following signs were observed within the 1-mile survey buffer: 2 burrows (Class 4) 0.4 miles northeast and southwest of the CRS; bone fragments (Class 5, not mineralized) 1 mile north and northeast of the CRS; and a bone fragment (Class 5, mineralized) 1 mile south of the CRS. Desert tortoise sign, including carcasses and active burrows, was observed in both the northern and the south-eastern line routes (CH2MHill, 2010), and suitable habitat is abundant. The proposed project area, including substation, access roads, and telecom routes, is within BLM-designated Category 3 desert tortoise habitat.

The analyses of Impact B-7 for the alternative sites also include a discussion regarding the protocol survey results in Section D.2. For instance, Section D.2.6 for the Partial Avoidance Alternative states the following in the Final SEIR:

Protocol surveys conducted for the proposed CRS site encompassed the Partial Avoidance Alternative site. No live tortoise or recent sign were observed during surveys and no sign were observed onsite. A tortoise burrow (Class 4) and mineralized tortoise bone fragment were observed within one mile of the alternative site.

Additionally, Section D.2.4 of the Final Supplemental EIR has been updated to include a discussion of potential impacts to the desert tortoise at the proposed CRS site. DPV2 Final EIR/EIS Mitigation Measures B-1a and B-7b and Mitigation Measure B-7c are also included. The permissible relocation distance for desert tortoises in Mitigation Measure B-7b has been revised to be consistent with the terms and conditions in the Biological Opinion (BO) for the DPV2 Transmission Line Project (January 2011), which encompasses the CRS expansion. The BO has been added to the Final SEIR as a new Appendix 10.

Mitigation Measure B-7c has also been revised to provide additional details regarding acquisition and funding mechanisms for compensatory mitigation lands and is consistent with the BO (this change was requested by SCE; refer to Response to Comment D01-30). The additional text is as follows:

Impact B-7: Construction activities would result in indirect or direct loss of listed wildlife or habitat (Class II for Desert tortoise, Class III for Swainson’s hawk)

Desert Tortoise. The project area provides low-quality habitat for desert tortoise. Although no live tortoises or recent sign were observed within the project area or 1-mile survey buffer and habitat quality is relatively poor, individuals could occur onsite as they move between areas of higher quality creosote scrub habitat adjacent to the sand transport corridor. Therefore, the project area is considered to be low-density occupied desert tortoise habitat. Impacts to desert tortoise from construction and operation of the CRS expansion are consistent with those described in the DPV2 EIR/EIS, including injury or mortality during surface disturbing activities, nest and/or burrow destruction, disruption of tortoise behavior during construction or

operation of facilities, disturbance by noise or vibrations from the heavy equipment, alteration of seasonal activities, and habitat degradation (e.g., noxious weed invasion and soil compaction) and loss. Additionally, human activity may attract subsidized predators, including ravens. As described in the DPV2 EIR/EIS (Section D.2.6.1.6), these impacts would be mitigated below the level of significance with implementation of Mitigation Measures B-1a (Prepare and implement a Habitat Restoration/Compensation Plan), B-7b (Conduct pre-construction tortoise surveys), and B-7c (Purchase mitigation lands for impacts to tortoise habitat) (Class II).

Mitigation Measures for Impact B-7: Construction activities would result in indirect or direct loss of listed wildlife or habitat (desert tortoise)

B-1a Prepare and implement a Habitat Restoration/Compensation Plan. SCE shall restore all areas disturbed by project construction, including temporary disturbance areas around tower construction sites, laydown/staging areas, temporary access and spur roads, and existing tower locations that are removed during construction of the Proposed Project. Where onsite restoration is planned for mitigation of temporary impacts to sensitive vegetation communities, SCE shall identify a qualified Habitat Restoration Specialist to be approved by the CPUC/BLM. Hydroseeding, drill seeding, or an otherwise proved restoration technique shall be utilized on all disturbed surfaces using a locally endemic native seed mix approved by the CPUC/CDFG/AGFD/FWS and BLM. SCE shall flag the limits of disturbance at each construction site. The Plan shall incorporate the measures identified in the June 2006 Memorandum of Understanding regarding vegetation management along rights-of-way for electrical transmission and distribution facilities on Federal lands. In project areas that occur in the WRCMSHCP plan area, SCE shall use the applicable Best Management Practices identified in the WRCMSHCP.

The creation or restoration of habitat shall be monitored for five years after mitigation site construction, or until established success criteria are met, to assess progress and identify potential problems with the restoration site. The following performance standards must be met by the end of the monitoring period: (a) at least 80% of the vegetative cover observed within the restoration area shall be native species that naturally occur in desert scrub habitats; (b) absolute cover and density of native plant species within the restoration areas shall equal at least 60% of the pre-disturbance or reference vegetation cover; and (c) the site shall have gone without irrigation or remedial planting for a minimum of three years prior to completion of monitoring. Remedial activities (e.g., additional planting, weeding, or erosion control) shall be taken during the monitoring period if necessary to ensure the success of the restoration effort. If the mitigation fails to meet the established performance criteria after the five-year maintenance and monitoring period, monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise noted by the CPUC/BLM.

B-7b Conduct pre-construction tortoise surveys. Prior to construction, SCE shall survey the transmission line corridor for desert tortoise burrows and pallets within fourteen (14) days preceding construction. Tortoise burrows and

pallets encountered within the construction zone (if any) will be conspicuously flagged by the surveying biologist(s) and avoided during all construction activities.

- During construction activities, SCE shall inspect under equipment and vehicles prior to moving equipment. If tortoises are encountered, the vehicle will not be moved until such animals have voluntarily moved to a safe distance away from the parked vehicle or a qualified biologist moves the tortoise.
- SCE shall monitor construction activities in all areas with the potential to support desert tortoise.
- Desert tortoises will be handled only by a FWS/CDFG permitted and authorized tortoise handler and only when necessary. New latex gloves will be used when handling each desert tortoise to avoid the transfer of infectious diseases between animals. Desert tortoises will be moved the minimum distance possible within appropriate habitat to ensure their safety. In general, desert tortoises will not be moved in excess of 1,640,000 feet (500 meters)~~for adults and 300 feet for hatchlings.~~
- Desert tortoises that are found above ground and need to be moved will be placed in the shade of a shrub. All desert tortoises removed from burrows will be placed in an unoccupied burrow of approximately the same size as the one from which it was removed. All excavation of desert tortoise burrows will be done using hand tools, either by, or under the direct supervision of, an authorized tortoise handler. If an existing burrow is unavailable, an authorized tortoise handler will construct or direct the construction of a burrow of similar shape, size, depth, and orientation as the original burrow. Desert tortoises moved during inactive periods will be monitored for at least two days after placement in the new burrows to ensure their safety. An authorized tortoise handler will be allowed some judgment and discretion to ensure that survival of the desert tortoise is likely.
- If desert tortoises need to be moved at a time of the day when ambient temperatures could harm them (less than 40 degrees F or greater than 90 degrees F), they will be held overnight in a clean cardboard box. These desert tortoises shall be kept in the care of an authorized tortoise handler under appropriate controlled temperatures and released the following day when temperatures are favorable. All cardboard boxes will be appropriately discarded after one use.
- All desert tortoises moved will be marked for future identification. An identification number using the acrylic paint/epoxy covering technique should be placed on the fourth costal scute. No notching would be authorized.

B-7c Purchase mitigation lands for impacts to tortoise habitat. Following construction, SCE shall acquire lands to compensate for the loss of tortoise habitat within the Category II and III management areas in California. The amount of land to be acquired will depend on the acreage of disturbance within

these management areas. Acquired lands will be in a nearby area of good tortoise density and within tortoise habitat. BLM and SCE shall conduct a field inspection of the disturbed areas after completion of construction of the transmission line to determine the exact acreage required for compensation. The lands purchased will be transferred to the United States and be administered by the BLM. Land may be transferred to the BLM and/or incorporated into an existing management area.

SCE may elect to fund the acquisition and initial improvement of compensation lands through the National Fish and Wildlife Foundation (NFWF) by depositing funds for that purpose into NFWF's Renewable Agency Action Team (REAT) Account. Initial deposits for this purpose must be made in the same amounts as the Security (refer to Table D.2-1) and may be provided in lieu of Security. If this option is used for the acquisition and initial improvement and the actual land cost is higher than the estimated Security amount, SCE shall make an additional deposit into the REAT Account if necessary to cover the actual acquisition costs and administrative costs and fees of the compensation land purchase once land is identified and the actual costs are known. If the actual costs for acquisition and administrative costs and fees are less than that estimated by CDFG, the excess money deposited in the REAT Account shall be returned to SCE. Money deposited for the initial protection and improvement of the compensation lands shall not be returned to SCE. The responsibility for acquisition of compensation lands may be delegated to a third party other than NFWF, such as a nongovernmental organization supportive of desert habitat conservation, by written agreement of CPUC, BLM, and CDFG. Such delegation shall be subject to approval by CPUC, in consultation with BLM and CDFG, prior to land acquisition, initial protection or maintenance and management activities.

The commenter asserts that without survey results it is impossible to determine impacts to desert tortoise. As described above, the SEIR has been revised to include protocol survey results. The protocol survey results were incorporated by reference in the Draft SEIR, and they have been added as Appendix 8 in the Final SEIR (survey results for CRS are presented in Section 5.2 and Figures 7 and 8 in Appendix 8). Although protocol surveys were not conducted for small portions of Avoidance Alternative #1 and #2 or any of Avoidance Alternative #3, reconnaissance-level surveys identified these areas as low-density occupied tortoise habitat, similar to those nearby proposed and alternative substation sites for which protocol surveys were completed. Project impacts to desert tortoise are disclosed in the SEIR (Sections D.4, D.6-D.10); these include injury or mortality during surface disturbing activities, nest and/or burrow destruction, disruption of tortoise behavior during construction or operation of facilities, disturbance by noise or vibrations from the heavy equipment, alteration of seasonal activities, habitat degradation (e.g., noxious weed invasion and soil compaction) and loss, and increased predation.

The commenter identified the potential for underestimation of tortoise densities given recent experience on the Ivanpah Solar Electric Generating System Project. It is understood that tortoises may move onto or off of the project site between the field surveys and the initiation of project construction. Recent protocol survey results for the project area have been incorporated into the Final SEIR; no tortoises or recent sign were observed

and the project area and alternative sites are considered low-density occupied tortoise habitat. If any tortoises are identified during clearance surveys, they would be moved less than 500 meters out of harm's way, per the requirements of the USFWS Biological Opinion (January 2011).

B06-10 Impact avoidance and minimization measures for desert tortoise are presented in Mitigation Measure B-7b. (See Response to Comment B06-9.) Additional conservation measures are presented in the DPV2 Transmission Line Project Biological Opinion, which encompasses the CRS expansion, including construction monitoring, implementation of a worker environmental awareness program, best management practices, tortoise clearance surveys, moving tortoises out of harm's way (less than 500 meters), a project-level raven control plan and contribution to regional raven management efforts. During construction monitoring, the CPUC will verify that the Biological Opinion's conservation measures and EIR/EIS and SEIR's mitigation measures are implemented.

The commenter states that there are no mechanisms to assure that compensatory mitigation land will be conserved in perpetuity and that additional protections in Desert Wildlife Management Areas (DWMAs) are warranted. The USFWS's Biological Opinion specifies that desert tortoise compensation lands will be "conserved in perpetuity" if acquired through the National Fish and Wildlife Foundation (NFWF) or, if acquired directly by SCE, the land must be protected by "either a conservation easement, deed restriction, or other protective measures."

B06-11 The commenter states that a 1:1 mitigation ratio for desert tortoise habitat outside of critical habitat is insufficient because there would be a resultant net loss of habitat. This ratio is consistent with the conservation measures in the Biological Opinion for DPV2. The Biological Opinion also includes the requirement that SCE fund various activities, including "improvements to carrying capacity, law enforcement measures, and other actions designed to protect or improve the habitat values of the acquired lands." These activities are intended to offset the net habitat loss that would result from the project. The Biological Opinion also requires that directly acquired conservation lands meet CDFG's fully mitigated standard. As shown by recent protocol surveys, the proposed project site has relatively poor quality habitat for desert tortoise, and the project area is considered to be low-density occupied desert tortoise habitat. Thus, the compensatory habitat would provide habitat with an improved carrying capacity for desert tortoise. For these reasons, the mitigation ratio is adequate to reduce impacts to less than significant, and additional mitigation is not required.

B06-12 Given the relatively small size of the project disturbance area, desert tortoises and MFTL identified prior to or during construction would be moved out of harm's way. Desert tortoise would be moved less than 500 meters and within the animal's home range. This is consistent with the Biological Opinion for DPV2. In this instance, these areas adjacent to the project need not be conserved in perpetuity.

B06-13 Impacts to burrowing owl were adequately analyzed in the DPV2 EIR/EIS. Survey results for the CRS support the findings that impacts to burrowing owl from CRS expansion would not be substantially more severe than the impacts identified in the DPV2 EIR/EIS. Therefore, analysis of burrowing owl impacts in this SEIR is not warranted. However, a discussion of burrowing owls is presented in the Final SEIR for disclosure purposes. Recent survey results for the CRS expansion are presented in Section D.2.1 of the Final SEIR as follows:

No burrowing owls or their sign were observed within the CRS expansion area; however, live birds and their sign were observed east of the gen-tie at the edge of the Stabilized and Partially-Stabilized Sand Dunes. An active burrow with birds was observed approximately 0.70-mi from the CRS expansion area. Although no sign was observed within the CRS expansion area, survey results indicate that burrowing owls are present in low densities within the vicinity of the CRS expansion area.

These recent survey results demonstrate that the environmental baseline for burrowing owl in the CRS expansion area is consistent with that analyzed in the DPV2 EIR/EIS. Refer also to General Response GR-2 regarding the scope of the biological resources analysis in the Supplemental EIR.

B06-14 The commenter requested additional information regarding the impact minimization and mitigation strategy for rare plants that grow in sandy soil (psammophytic). Impacts to sand dune habitat (which is habitat for sensitive, psammophytic plants) are described in Impact B-8 in the Draft Supplemental EIR. As discussed in Section D.2.4 (page D-15) of the Draft SEIR, the Proposed Project would result in the direct and permanent loss of approximately 98 acres of sand dune habitat considered occupied habitat for several special status plant species (Harwood's milk-vetch, Harwood's eriastrum, and flat-seeded spurge). Given the similarity of habitat requirements for these rare plants and MFTL, compensatory mitigation for rare plants will be nested in compensatory mitigation for MFTL. Mitigation Measure B-9j has been revised to clarify that if Harwood's milk-vetch, Harwood's eriastrum, or flat-seeded spurge are identified in the project disturbance area during pre-construction surveys, an occurrence of this species must also be present within the property identified for suitable compensatory mitigation for MFTL. The full text of Mitigation Measure B-9j is included in Section D.2.4 of the Final SEIR. An excerpt from Mitigation Measure B-9j that contains the revised text is presented below:

c. Contain at least one occurrence of Harwood's milk-vetch, Harwood's eriastrum, or flat-seeded spurge if these species are identified in pre-construction surveys required per Mitigation Measure B-8b(2).

Mitigation Measure B-8b and Applicant proposed measures APM B-2, B-3, B-12, B-13, B-14, W-3) also provide mitigation for special status plant species. Impacts to these special-status plant species would be less than significant with mitigation (Class II). Regarding the commenter's question about seed collection, seed collection is not part of the mitigation strategy; however, avoidance requirements incorporated in Mitigation Measure B-8b would also avoid impacts to existing seed beds.

B06-15 There are no special-status insect species documented from the vicinity of the proposed project site (as tracked in the CNDDDB). Biological surveys to support this CEQA analysis focused primarily on special-status species and are not intended to be exhaustive inventories of all animals in the project area. Insects without special conservation status were not evaluated. CEQA analyses must generally describe environmental impacts, including potentially significant impacts. The required focus of analysis is on the significant environmental effects of the proposed project. (CEQA Guidelines § 15126.2(a).) Thus, the analyses would not address every species or group of species. Nevertheless, mitigation measures for special-status plants and wildlife identified in the SEIR and DPV2 Final EIR/EIS (2006) would also reduce impacts to insects. From the SEIR, these include Miti-

gation Measures B-8b and B-9j, which would benefit native insects by avoiding or minimizing adverse habitat impacts and acquiring and/or enhancing compensatory habitat.

B06-16 Habitat fragmentation, loss of connectivity, increased predation, and proliferation of noxious weeds are addressed in the DPV2 Final EIR/EIS (2006). Please see Response to Comment B02-2 for additional discussion of raven management. Refer to General Response GR-2 regarding the scope of the biological resources analysis in the SEIR.

B06-17 The commenter states that the analysis of cumulative impacts is inadequate. The cumulative analysis included in the Draft and Final Supplemental EIR satisfies the requirements of CEQA [14 Cal Code Regs § 15130 and § 15164(b)(1)]. As stated in Section E.1 of the Final Supplemental EIR, the focus of the Supplemental EIR cumulative analysis is on whether there is a new significant cumulative impact or a substantially more severe cumulative impact than was identified in the DPV2 Final EIR/EIS, and if so, whether the CRS expansion's contribution to that impact would be cumulatively considerable. As stated in Section E.3 of the Final Supplemental EIR, for most environmental disciplines the changes would be minimal, the project's cumulative contribution has not changed from the DPV2 Final EIR/EIS, and there would not be a new significant cumulative impact nor a substantially more severe cumulative impact than was identified in the DPV2 Final EIR/EIS.

Regarding the consideration of alternatives, Section E.3 in the Final Supplemental EIR concludes that for all environmental disciplines except biological and cultural resources, the cumulative scenario and contribution of the Proposed Project would be the same for the five site alternatives evaluated in the Supplemental EIR due to their proximity and similarities in the type, duration and extent of construction activities.

Cumulative impacts related to biological resources and cultural resources for the substation site alternatives are discussed under Sections E.3.1.2 and E.3.2.2 in the Final Supplemental EIR, respectively. In each instance, alternatives have been considered that would reduce the project's contribution to cumulatively considerable biological and cultural resources impacts (see Section F of the Final Supplemental EIR for a comparison of alternatives).

The entire approved Devers–Palo Verde No. 2 Project in California, as well as the Blythe Solar Power Project (BSPP) and the Genesis Solar Energy Project (GSEP), are included in the cumulative scenario, as shown in Table E-2 in the Final Supplemental EIR. In addition, the summaries of the “connected actions” in Section D of the Final Supplemental EIR discuss cumulative impacts for each issue area as they relate to BSPP and GSEP.

B06-18 As discussed in Section C.1 and Appendix 1 Section 1.1 of the Supplemental EIR, one of the most important aspects of the environmental review process is the identification and assessment of reasonable alternatives that would avoid or minimize the impacts of a Proposed Project. In addition to mandating consideration of the No Project Alternative, CEQA Guidelines (Section 15126.6(d)) emphasize the selection of a reasonable range of technically feasible alternatives and adequate assessment of these alternatives to allow for a meaningful evaluation and comparative analysis for consideration by decision-makers. The discussion of environmental effects of the alternatives may be in less detail than the discussion of impacts of the project as proposed.

In total, the alternatives screening process culminated in the identification and preliminary screening of eight potential alternatives in Appendix 1 of the SEIR. These alternatives include various locations for the CRS substation as well as rotated configurations on the proposed site and installation of a sand shield to reduce or avoid biological resources impacts within the sand transport corridor. Incorporating the evaluation of alternatives included in Section D of the Final Supplemental EIR, Section F.4 (Environmentally Superior Alternative) concluded that all of the alternative sites except the Partial Avoidance Alternative would move the substation site outside of the active sand transport corridor and would reduce the Proposed Project's significant and unmitigable impact on Mojave fringe-toed lizard sand dune habitat to a less than significant level. Please refer to Response to Comment B06-6 for a discussion of the adequacy of the alternatives analysis and the comparison of alternatives.

In addition, see Response to Comment B04-1 regarding the range of alternatives and Responses to Comments B07-1 and B07-2 regarding non-wires alternatives and rooftop solar.

B06-19 The commenter requests recirculation of the Draft Supplemental EIR with additional data, information, and mitigation plans included. For an explanation of why the Supplemental EIR is adequate and recirculation is not required, please refer to the previous responses to Comment Letter B06, as well as General Response GR-1 (Further Studies and Surveys are Not Required in Order to Adequately Assess Impacts of Alternatives).

**Comment Set B07
Californians for Renewable Energy**

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

In the Matter of the Application of SOUTHERN CALIFORNIA EDISON COMPANY (U338E) for a Permit to Construct Electrical Facilities: Colorado River Substation Expansion Project.

**Application 10-11-005
(Filed November 3, 2010)**

**CALIFORNIANS FOR RENEWABLE ENERGY'S INITIAL COMMENTS
ON SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT REPORT
FOR COLORADO RIVER SUBSTATION EXPANSION
(California SCH 2005101104)**

Date: April 8, 2011.

Submitted by: BRIGGS LAW CORPORATION [file: 1190.10]
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Attorneys for CALifornians for Renewable Energy

Comment Set B07, cont.
Californians for Renewable Energy

CALifornians for Renewable Energy now respectfully submits the following initial comments on the supplemental draft environmental impact report for the Colorado River Substation Expansion (California SCH 2005101104). The initial comments are from Bill Powers, P.E., and Robert M. Sarvey and are attached hereto as Exhibits 1 and 2, respectively.

Date: April 8, 2011.

Submitted by: BRIGGS LAW CORPORATION

By: s/ Cory J. Briggs
Cory J. Briggs

Comment Set B07, cont.
Californians for Renewable Energy

VERIFICATION

I am the attorney for CALifornians for Renewable Energy (“CARE”) in this proceeding. My client is absent from the County of San Bernardino, California, where my office is located. I make this verification on behalf of my client for that reason.

The factual statements in the foregoing document and attachments hereto are true of my own knowledge or based on information and belief, and as to those matters I believe them to be true.

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

Date: April 8, 2011. s/ Cory J. Briggs

Comment Set B07, cont.
Californians for Renewable Energy

**CALIFORNIANS FOR RENEWABLE ENERGY'S INITIAL COMMENTS
ON SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT REPORT
FOR COLORADO RIVER SUBSTATION EXPANSION
(California SCH 2005101104)**

Exhibit 1

**Comment Set B07, cont.
Californians for Renewable Energy**

**ON BEHALF OF CALIFORNIANS FOR RENEWABLE ENERGY
COMMENTS OF BILL POWERS, P.E.
ON DEVERS TO PALO VERDE 2 TRANSMISSION LINE DRAFT SUPPLEMENTAL
EIR**

April 8, 2011

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Comment Set B07, cont. Californians for Renewable Energy

1 **I. Introduction**
2 I am a registered professional mechanical engineer in California with over 25 years of
3 experience in the energy and environmental fields. I have permitted five 50 MW peaking
4 turbine installations in California, as well as numerous gas turbine, microturbine, and
5 engine cogeneration plants around the state. I organized conferences on permitting gas
6 turbine power plants (2001) and dry cooling systems for power plants (2002) as chair of the
7 San Diego Chapter of the Air & Waste Management Association. I am the author of the
8 October 2007 strategic energy plan for the San Diego region titled “San Diego Smart
9 Energy 2020.” The plan uses the state’s Energy Action Plan as the framework for
10 accelerated introduction of local renewable and cogeneration distributed resources to
11 reduce greenhouse gas emissions from power generation in the San Diego region by 50
12 percent by 2020. I am the author of several articles in Natural Gas & Electricity Journal on
13 use of large-scale distributed solar PV in urban areas as a cost-effective substitute for new
14 gas turbine peaking capacity and large, remote solar power plants.

15
16 My comments address: 1) the inadequate analysis of the distributed photovoltaic (PV)
17 alternative to Devers to Palo Verde 2 Transmission Project (DPV2) project in the February
18 2011 DPV2 Draft Supplemental EIR and 2) the proposed Westlands Water District
19 Competitive Renewable Energy Zone, located on retired farmland in the Central Valley
20 and served by 5,000 MW of existing transmission capacity, as a superior location for the
21 1,250 MW of solar capacity that the DPV2 transmission line is proposed to serve.

22
23 The DPV2 Draft Supplemental EIR makes no pretense of evaluating a non-transmission
24 alternative to DPV2. The Draft Supplemental EIR simply states (p. C-16):

25
26 “The No Project Alternative scenario is the circumstance under which the Proposed Project
27 does not proceed. (CEQA Guidelines §15126.6(e)(3)(B).) The analysis of the No Project
28 Alternative compares the environmental effects of the property remaining in its existing
29 state, against environmental effects which would occur if the Proposed Project is approved.

30 Disapproval of the Proposed Project would likely lead SCE and/or the solar project
31 developers to pursue other actions to achieve the objectives of the Proposed Project. The

B07-1

Comment Set B07, cont.
Californians for Renewable Energy

1 events or actions that are reasonably expected to occur in the foreseeable future without the
2 CRS expansion include the following:

3
4 • The approved 500 kV transmission from Colorado River Substation to Devers
5 Substation would be constructed as already approved by the CPUC (and as anticipated to
6 be approved by the BLM).

7
8 • The approved solar power projects (1,000 MW Blythe Solar Power Project - BSPP and
9 250 MW Genesis Solar Energy Project - GSEP) would have substantial delays in their
10 online dates because their projects would have to be redesigned and the changes re-
11 evaluated under CEQA and NEPA due to the need for substantially larger and more
12 inefficient infrastructure. Specifically:

13
14 • The BSPP project would likely have to be redesigned to incorporate a larger onsite
15 substation and a 500 kV gentie line, rather than a 230 kV gentie line to the expanded CRS
16 substation, in order for BSPP to interconnect to the regional transmission system. The
17 additional cost of this larger substation and the delays associated with CEQA and NEPA
18 review of the changes may affect the financial viability of the project and its ability to
19 qualify for financing.

20
21 • The approved GSEP project would use an existing 230 kV transmission line along
22 much of the route between the Genesis solar project site and the CRS. In the No Project
23 scenario, both a larger onsite substation and a new, additional 500 kV line would have to be
24 installed (rather than the current approved plan, which would require only installation of a
25 second circuit onto existing 230 kV towers).”

26
27 There is no analysis of non-transmission alternatives in the DPV2 Draft Supplemental EIR.
28 The construction of BSPP and GSEP are assumed to be inevitable, despite both projects
29 being subject to National Historic Preservation Act Section 106 lawsuits. In contrast, the
30 Draft and October 2008 Final EIR/EIS prepared by the California Public Utilities
31 Commission (CPUC) and Bureau of Land Management (BLM) for San Diego Gas &
32 Electric’s (SDG&E) proposed Sunrise Powerlink transmission line includes voluminous

B07-1 cont.

Comment Set B07, cont. Californians for Renewable Energy

1 analysis of multiple non-transmission alternatives to the proposed project. See the complete
2 Sunrise Powerlink Final EIS/EIS at:
3 <http://www.cpuc.ca.gov/environment/info/aspen/sunrise/toc-feir.htm>.

B07-1 cont.

4
5 The conclusion of the CPUC/BLM Final EIR/EIS for the Sunrise Powerlink was that either
6 of the two non-transmission in-basin alternatives was environmentally superior to the
7 proposed project or any transmission alternative to the proposed project. The DPV2 Draft
8 Supplemental EIR avoids a similar conclusion by failing to analyze any non-transmission
9 alternative to DPV2.

10

11 The failure of the DPV2 Draft Supplemental EIR to analyze non-transmission alternatives
12 is a substantial omission. SCE is already constructing a 500 MW distributed PV project.
13 Distributed PV is clearly a viable non-transmission alternative. The major controversy
14 surrounding both BSPP and GSEP is the use of undeveloped public lands for these
15 projects. There are hundreds of thousands of acres of retired agricultural lands and
16 brownfields in the Mojave Desert and Central Valley located on or near existing
17 transmission lines. Comments by Powers Engineering on the CEC's June 2010 Revised
18 Staff Assessment (RSA) for the GSEP are used as a case study in this comment letter to
19 demonstrate the cost and siting advantages of non-transmission alternatives to DPV2.

20

21 **II. Rooftop PV Is at the Top of the Energy Action Plan Loading Order**

B07-2

22 The California Energy Commission (CEC), in discussing the conservation and demand-
23 side management alternative to solar thermal projects in the Mojave Desert such as ISEGS
24 and GSEP, that cost-effective energy efficiency is the resource of first choice in meeting
25 California's energy needs (p. B.2-84, GSEP Revised Staff Assessment - RSA):

26

27 "Conservation and demand-side management consist of a variety of approaches to
28 reduce of electricity use, including energy efficiency and conservation, building and
29 appliance standards, and load management and fuel substitution. In 2005 the Energy
30 Commission and CPUC's Energy Action Plan II declared cost effective energy efficiency
31 as the resource of first choice for meeting California's energy needs."

32

Comment Set B07, cont.
Californians for Renewable Energy

B07-2 cont.

1 The CEC and the CPUC developed the “Energy Action Plan” in 2003 to guide strategic
2 energy decisionmaking in California. The Energy Action Plan establishes the energy
3 resource “loading order,” or priority list that defines how California’s energy needs are to
4 be met. Energy Action Plan I was published in May 2003.¹ Energy Action Plan I describes
5 the loading order in the following manner (p. 4):

6
7 “The Action Plan envisions a “loading order” of energy resources that will guide
8 decisions made by the agencies jointly and singly. First, the agencies want to
9 optimize all strategies for increasing conservation and energy efficiency to minimize
10 increases in electricity and natural gas demand. Second, recognizing that new
11 generation is both necessary and desirable, the agencies would like to see these
12 needs met first by renewable energy resources and distributed generation. Third,
13 because the preferred resources require both sufficient investment and adequate
14 time to “get to scale,” the agencies also will support additional clean, fossil fuel,
15 central-station generation. Simultaneously, the agencies intend to improve the bulk
16 electricity transmission grid and distribution facility infrastructure to support growing
17 demand centers and the interconnection of new generation.”

18
19 Energy Action Plan I, Under “Optimize Energy Conservation and Resource Efficiency,”
20 states (p. 5):

21
22 “Incorporate distributed generation or renewable technologies into energy efficiency
23 standards for new building construction.”

24
25 Energy Action Plan I identifies rooftop PV as a de facto energy efficiency measure with
26 this statement. As noted in the GSEP RSA (p. B.2-84), energy efficiency is at the top of the
27 loading order. Energy Action Plan I also states, Under “Promote Customer and Utility-
28 Owned Distributed Generation,” (p. 7):

29
30 “Distributed generation is an important local resource that can enhance reliability and
31 provide high quality power, without compromising environmental quality. The state is

¹ Energy Action Plan I: http://www.energy.ca.gov/energy_action_plan/2003-05-08_ACTION_PLAN.PDF

Comment Set B07, cont. Californians for Renewable Energy

B07-2 cont.

1 promoting and encouraging clean and renewable customer and utility owned distributed
2 generation as a key component of its energy system. Clean distributed generation should
3 enhance the state’s environmental goals. This determined and aggressive commitment to
4 efficient, clean and renewable energy resources will provide vision and leadership to others
5 seeking to enhance environmental quality and moderate energy sector impacts on climate
6 change. Such resources, by their characteristics, are virtually guaranteed to serve California
7 load. With proper inducements distributed generation will become economic.

- 8
- 9 • Promote clean, small generation resources located at load centers.
- 10 • Determine system benefits of distributed generation and related costs.
- 11 • Develop standards so that renewable distributed generation may participate in the
12 Renewable Portfolio Standard program.”
- 13

14 Energy Action Plan I prioritizes rooftop PV as the preferable renewable resource, but
15 indicates obliquely that it is costly and that in any case distributed PV is not eligible to
16 participate in the Renewable Portfolio Standard (RPS) program. Therefore investor-owned
17 utilities have no incentive to develop distributed PV resources. Since Energy Action Plan I
18 was approved in 2003, PV cost has dropped dramatically. Commercial distributed PV is
19 half the cost it was in 2003 and costs continue to drop. Residential PV is following quickly
20 behind. Distributed PV is also now eligible for the RPS program.²

21

22 Energy Action Plan II was adopted in September 2005.³ The purpose of Energy Action
23 Plan II is stated as (p. 1): “EAP II is intended to look forward to the actions needed in
24 California over the next few years, and to refine and strengthen the foundation prepared by
25 EAP I.” Energy Action Plan II reaffirms the loading order stating (p. 2):

26

27 “EAP II continues the strong support for the loading order – endorsed by Governor
28 Schwarzenegger – that describes the priority sequence for actions to address increasing
29 energy needs. The loading order identifies energy efficiency and demand response as

² CPUC Press Release – Docket A.08-03-015, *CPUC Approves Edison Solar Roof Program*, June 18, 2009.
“The energy generated from the project will be used to serve Edison’s retail customers and the output from these facilities will be counted towards Edison’s RPS goals.”

³ Energy Action Plan II: http://www.energy.ca.gov/energy_action_plan/2005-09-21_EAP2_FINAL.PDF

Comment Set B07, cont.
Californians for Renewable Energy

B07-2 cont.

1 | the State’s preferred means of meeting growing energy needs. After cost-effective
2 | efficiency and demand response, we rely on renewable sources of power and distributed
3 | generation, such as combined heat and power applications. To the extent efficiency,
4 | demand response, renewable resources, and distributed generation are unable to satisfy
5 | increasing energy and capacity needs, we support clean and efficient fossil-fired
6 | generation.”
7 |
8 | The CEC’s *2009 Integrated Energy Policy Report (IEPR) – Final Committee Report*
9 | (December 2009), underscores the integration of building PV as a critical component of
10 | “net zero” energy use targets for new residential and commercial construction, under the
11 | heading “Energy Efficiency and the Environment,” explaining:⁴
12 |
13 | “With the focus on reducing GHG emissions in the electricity sector, energy efficiency
14 | takes center stage as a zero emissions strategy. One of the primary strategies to reduce
15 | GHG emissions through energy efficiency is the concept of zero net energy buildings. In
16 | the 2007 IEPR, the Energy Commission recommended increasing the efficiency standards
17 | for buildings so that, when combined with on-site generation, newly constructed buildings
18 | could be zero net energy by 2020 for residences and by 2030 for commercial buildings.
19 |
20 | A zero net energy building merges highly energy efficient building construction and state-
21 | of-the-art appliances and lighting systems to reduce a building’s load and peak
22 | requirements and includes on-site renewable energy such as solar PV to meet remaining
23 | energy needs. The result is a grid-connected building that draws energy from, and feeds
24 | surplus energy to, the grid. The goal is for the building to use net zero energy over the
25 | year.”
26 |
27 | The GSEP RSA acknowledges the state’s commitment to net zero residential and
28 | commercial buildings, stating (RSA, p. B.2-84):
29 |
30 | “The CPUC, with support from the Governor’s Office, the Energy Commission, and the
31 | California Air Resources Board, among others, adopted the California Long-Term

⁴ CEC, *2009 Integrated Energy Policy Report (IEPR) – Final Committee Report*, December 2009, p. 56.

Comment Set B07, cont. Californians for Renewable Energy

1 Energy Efficiency Strategy Plan for 2009 to 2020 in September 2008 (CPUC 2008). The
2 plan is a framework for all sectors in California including industry, agriculture, large and
3 small businesses, and households. Major goals of the plan include:
4
5 • All new residential construction will be zero net energy by 2020;
6 • All new commercial construction will be zero net energy by 2030;
7 • Heating, ventilation, and air conditioning industries will be re-shaped to deliver
8 maximum performance systems;
9 • Eligible low-income customers will be able to participate in the Low Income
10 Energy Efficiency program and will be provided with cost-effective energy efficiency
11 measures in their residences by 2020.”

B07-2 cont.

12
13 The GSEP RSA is flawed in its failure to identify rooftop PV as a higher priority in the
14 Energy Action Plan loading order, and California’s long-term energy efficiency strategy
15 plan, than utility-scale remote solar resources like GSEP. Rooftop (or parking lot)
16 distributed PV is an integral component of the long-term energy efficiency strategy plan
17 adopted by the CPUC in 2008. Energy Action Plan II declares cost-effective energy
18 efficiency as the resource of first choice for meeting California’s energy needs. The CEC
19 rejection of distributed PV as a superior alternative to the proposed GSEP solar thermal
20 projects ignores the integral role of distributed PV in the CEC’s own definition of energy
21 efficiency and net zero buildings in the 2009 IEPR.

23 **III. GSEP RSA Rationale for Eliminating Rooftop PV is Flawed**

24 The GSEP RSA correctly describes that a distributed rooftop PV alternative has essentially
25 no environmental impact, stating (p. B.2-68):

B07-3

- 26
27 • Distributed solar PV is assumed to be located on already existing structures or
28 disturbed areas so little to no new ground disturbance would be required and there would
29 be few associated biological impacts.
30
31 • Relatively minimal maintenance and washing of the solar panels would be required.
32

Comment Set B07, cont.
Californians for Renewable Energy

1 • Because most PV panels are black to absorb sun, rather than mirrored to reflect it,
2 glare would be minimal relative to reflective technologies (like GSEP)

B07-3 cont.

3
4 • Additionally, the distributed solar PV alternative would not require the additional
5 operational components, such as dry-cooling towers, substations, transmission
6 interconnection, maintenance and operation facilities with corresponding visual impacts.

7
8 The GSEP RSA then eliminates distributed PV, citing a number of reasons why achieving
9 250 MW of distributed PV is not a feasible substitute for GSEP (RSA, p. B.2-69):

10
11 • Would require accelerated deployment of distributed PV at more than double the
12 historic rate of deployment under the California Solar Initiative.

13
14 • Would require lower PV cost - distributed PV is higher cost than central station
15 solar thermal.

16
17 • Integrating large amounts of distributed PV on distribution systems throughout
18 California presents challenges – will require development of a new transparent distribution
19 planning framework.

20
21 Each of these justifications for elimination of distributed PV is flawed, as explained in the
22 following paragraphs.

23
24 **A. Distributed PV Is Already Being Deployed at a Much Faster Rate in California**
25 **than Central Station Solar Thermal**

B07-4

26 The GSEP RSA notes that more than 540 MW of distributed PV was in operation in
27 California through May 2009, and that the PV installation rate doubled between 2008 and
28 2007. California has approximately 360 MW of installed solar thermal capacity as of June
29 2010. With the exception of the 5 MW eSolar power tower demonstration project that came

Comment Set B07, cont. Californians for Renewable Energy

1 | online in 2009 (p. B.2-68), all of this solar thermal capacity was installed between 1984
2 | and 1990.⁵

3 |

4 | The GSEP RSA correctly describes that both SCE and PG&E, the two largest investor-
5 | owned utilities (IOU) in California, are constructing large distributed PV projects (p. B.2-
6 | 67). SDG&E has a much smaller distributed PV project in development. The 500 MW SCE
7 | urban PV project was approved by the CPUC in June 2009. The 500 MW PG&E
8 | distributed PV project was approved by the CPUC in April 2010. These projects are RPS-
9 | eligible and will consist of a 250 MW IOU-owned component and a 250 MW third-party
10 | component. The power purchase agreement (PPA) between GSEP and PG&E is same type
11 | of contract mechanism that will be used by SCE and PG&E to contract for the 250 MW
12 | third-party component of their respective distributed PV projects.

13 |

14 | Progress in distributed PV installation rates under the California Solar Initiative (CSI)
15 | program provides no insight into the ability of the solar industry to carry-out multiple
16 | large-scale distributed PV projects simultaneously, in the range of 250 to 500 MW each, in
17 | California. The CSI program is not the vehicle that will be used to build these projects.
18 | These projects will be built under long-term PPAs between the distributed PV project
19 | developer and a utility within the framework of the RPS program.

20 |

21 | An example is the PPA between PG&E and Sempra Generation for 10 MW of fixed thin-
22 | film PV in Nevada.⁶ Sempra Resources is the holding company that owns both Sempra
23 | Generation and SDG&E. The PG&E/Sempra PPA is a technology-differentiated renewable
24 | energy contract at a price incrementally higher than the market price referent (MPR) to
25 | assure that the project developer, Sempra Generation, makes a reasonable return on its
26 | investment. The contract is in effect the equivalent of a technology differentiated feed-in
27 | tariff for solar power. No incentives beyond the federal investment tax credit and
28 | accelerated depreciation available to any solar energy project were necessary. No
29 | incentives beyond those already available would be necessary to build 250 MW of
30 | distributed PV under a long-term PPA to substitute for GSEP.

B07-4 cont.

⁵ CEC, Large Solar Energy Projects webpage: <http://www.energy.ca.gov/siting/solar/index.html>

⁶ CPUC Resolution E-4240, *Approval of a power purchase agreement (PPA) for generation from a new solar photovoltaic facility between PG&E and El Dorado Energy, LLC (Sempra Generation)*, May 18, 2009.

Comment Set B07, cont.
Californians for Renewable Energy

1
2 Sempra Generation touts the cost of power generated by its 10 MW PV installation in
3 Nevada as “the lowest cost solar energy in the world.”⁷ The company specifically mentions
4 solar thermal projects like GSEP as producing higher-cost solar energy and being
5 commercially unproven, stating:⁸

B07-4 cont.

6
7 “Sempra has also evaluated solar thermal power technologies, which use a field of mirrors
8 to concentrate the sunlight to produce heat for electricity generation. The company has
9 found that using solar panels is the cheaper option, (CEO) Allman said. He noted that some
10 of the solar thermal power technologies, such as the use of a central tower for harvesting
11 the heat and generating steam, have yet to be proven commercially.”

12
13 SCE has a similar RPS-eligible PPA with NRG for the output of a 21 MW fixed thin-film
14 PV array in Blythe, California.⁹ This project began operation in December 2009.

15
16 **B. IOUs and California’s Energy Policy Makers Acknowledge the Obvious Benefits**
17 **of Large-Scale Distributed PV Projects as a Direct Complement/Substitute for**
18 **Remote Central Station Renewable Energy and Associated Transmission**

B07-5

19 SCE expressed confidence in its March 2008 application to the CPUC for a 250 to 500
20 MW urban PV project that it can absorb thousands of MW of distributed PV without
21 additional distribution substation infrastructure, stating “SCE’s Solar PV Program is
22 targeted at the vast untapped resource of commercial and industrial rooftop space in SCE’s
23 service territory”¹⁰ and “SCE has identified numerous potential (rooftop) leasing partners
24 whose portfolios contain several times the amount of roof space needed for even the 500
25 MW program.”¹¹

26

⁷ GreenTech Media, *Sempra Wants 300 MW Plus of Solar in Arizona*, April 22, 2009. “The electricity we are getting out of the 10-megawatt is the lowest cost solar energy ever generated from anywhere in the world.” (CEO Michael Allman).

⁸ Ibid.

⁹ First Solar press release, *First Solar Sells California Solar Power Project to NRG*, November 23, 2009.

¹⁰ SCE Application A.08-03-015, *Solar Photovoltaic (PV) Program Application*, March 27, 2008, p. 6.

¹¹ SCE Application A.08-03-015, *Solar Photovoltaic (PV) Program Testimony*, March 27, 2008, p. 44.

Comment Set B07, cont. Californians for Renewable Energy

1 SCE stated it has the ability to balance loads at the distribution substation level to avoid
2 having to add additional distribution infrastructure to handle this large influx of distributed
3 PV power.¹² SCE explains:
4
5 “SCE can coordinate the Solar PV Program with customer demand shifting using existing
6 SCE demand reduction programs on the same circuit. This will create more fully utilized
7 distribution circuit assets. Without such coordination, much more distribution equipment
8 may be needed to increase solar PV deployment. SCE is uniquely situated to combine solar
9 PV Program generation, customer demand programs, and advanced distribution circuit
10 design and operation into one unified system. This is more cost-effective than separate and
11 uncoordinated deployment of each element on separate circuits.”¹³
12
13 SCE also notes that it will be able to remotely control the output from individual PV arrays
14 to prevent overloading distribution substations or affecting grid reliability:¹⁴
15
16 “The inverter can be configured with custom software to be remotely controlled. This
17 would allow SCE to change the system output based on circuit loads or weather
18 conditions.”
19
20 As SCE states, “Because these installations will interconnect at the distribution level, they
21 can be brought on line relatively quickly without the need to plan, permit, and construct the
22 transmission lines.”¹⁵ This statement was repeated and expanded in the CPUC’s June 18,
23 2009 press release regarding its approval of the 500 MW SCE urban PV project:¹⁶
24
25 Added Commissioner John A. Bohn, author of the decision, “This decision is a major step
26 forward in diversifying the mix of renewable resources in California and spurring the
27 development of a new market niche for large scale rooftop solar applications. Unlike other
28 generation resources, these projects can get built quickly and without the need for
29 expensive new transmission lines. And since they are built on existing structures, these

B07-5 cont.

¹² SCE Application A.08-03-015, *Solar Photovoltaic (PV) Program Application*, March 27, 2008, pp. 8-9.

¹³ *Ibid.*, p. 9.

¹⁴ SCE Application A.08-03-015, *Solar Photovoltaic (PV) Program Testimony*, March 27, 2008, p. 27.

¹⁵ *Ibid.*, p. 6.

¹⁶ CPUC Press Release – Docket A.08-03-015, *CPUC Approves Edison Solar Roof Program*, June 18, 2009.

Comment Set B07, cont.
Californians for Renewable Energy

1 projects are extremely benign from an environmental standpoint, with neither land use,
2 water, or air emission impacts. By authorizing both utility-owned and private development
3 of these projects we hope to get the best from both types of ownership structures,
4 promoting competition as well as fostering the rapid development of this nascent market.”

B07-5 cont.

5
6 The CPUC made a similar observation with its approval of the PG&E 500 MW distributed
7 PV project in April 2010:¹⁷

8
9 “This solar development program has many benefits and can help the state meet its
10 aggressive renewable power goals,” said CPUC President Michael R. Peevey. “Smaller
11 scale projects can avoid many of the pitfalls that have plagued larger renewable projects in
12 California, including permitting and transmission challenges. Because of this, programs
13 targeting these resources can serve as a valuable complement to the existing Renewables
14 Portfolio Standard program.”

15
16 The use of the term “smaller scale” in the CPUC press release is a misnomer. Clearly a 500
17 MW distributed PV project is larger-scale than the 250 MW GSEP solar thermal project.
18 Individual rooftop PV arrays in a large distributed PV project are functionally equivalent to
19 single rows of reflective mirrors in a solar thermal project. Each rooftop or row is a small
20 contributor to a much bigger whole.

21
22 **C. IOUs Need Only Provide a Basic Level of Existing Information on Individual IOU**
23 **Substation Capacities to PV Developers to Interconnect Over 13,000 MW of**
24 **Distributed PV with Minimal Interconnection Cost**

B07-6

25 The CPUC has also calculated, for the entire inventory of approximately 1,700 existing
26 IOU substations, the amount of distributed PV that could be accommodated with minimal
27 interconnection cost based on the following reasoning:¹⁸

28

¹⁷ CPUC Press Release – Docket A.09-02-019, *CPUC Approves Solar PV Program for PG&E*, April 22, 2010.

¹⁸ CPUC Rulemaking R.08-08-009 – California RPS Program, Administrative Law Judge’s Ruling on Additional Commission Consideration of a Feed-In Tariff, *Attachment A - Energy Division FIT Staff Proposal*, March 27, 2009, p. 15.

Comment Set B07, cont. Californians for Renewable Energy

1 “Rule 21 specifies maximum generator size relative to the peak load on the load at the
2 point of interconnection at 15%. So, for example, if a generator is interconnected on the
3 low side of a distribution substation bank with a peak load of 20 MW, the maximum Rule
4 21 interconnection criteria would allow a 3 MW system ($3 \text{ MW} = 15\% * 20 \text{ MW}$).
5
6 However, the 15% criterion, which is established for all generators regardless of type, was
7 adjusted to 30% for the purposes of determining the technical potential of PV. The 15%
8 limit is established at a level where it is unlikely the generator would have a greater output
9 than the load at the line segment, even in the lowest load hours in the off-peak hours and
10 seasons (such as the middle of the night and in the spring). Since the peak output for
11 photovoltaics is during the middle of the day, PV is unlikely to have any output when loads
12 are lowest. Therefore, a 30% criterion was used for technical interconnection potential
13 estimates. The discussion was held with utility distribution engineers, however, we did not
14 consider formal engineering studies or Rule 21 committee deliberation since the purpose of
15 the analysis was only to define potential.”
16
17 As a component of the DG FIT development process, the CPUC requested data on peak
18 loads at all IOU substations from the IOUs and compiled that information graphically as
19 shown in Figure 1. According to the CPUC, this data was obtained from IOU distribution
20 engineers.¹⁹ I calculate that approximately 13,300 MW of PV can be connected directly to
21 IOU substation load banks based on the data in Figure 1. The supporting calculations for
22 this estimate are provided in Table 1.
23
24 The IOUs provide about two-thirds of electric power supplied in California, with publicly-
25 owned utilities like the Los Angeles Department of Water & Power and the Sacramento
26 Municipal Utility District and others providing the rest.²⁰ Assuming the substation capacity
27 pattern in Figure 1 is also representative of the non-IOU substations, the total California-
28 wide PV that could be interconnected at substation low-side load banks with no substantive
29 substation upgrades would be $[13,300/(2/3)] = 19,950 \text{ MW}$.

B07-6 cont.

¹⁹ CPUC Rulemaking R.08-08-009 – California RPS Program, Administrative Law Judge’s Ruling on Additional Commission Consideration of a Feed-In Tariff, *Attachment A - Energy Division FIT Staff Proposal*, March 27, 2009, pp. 15-16.

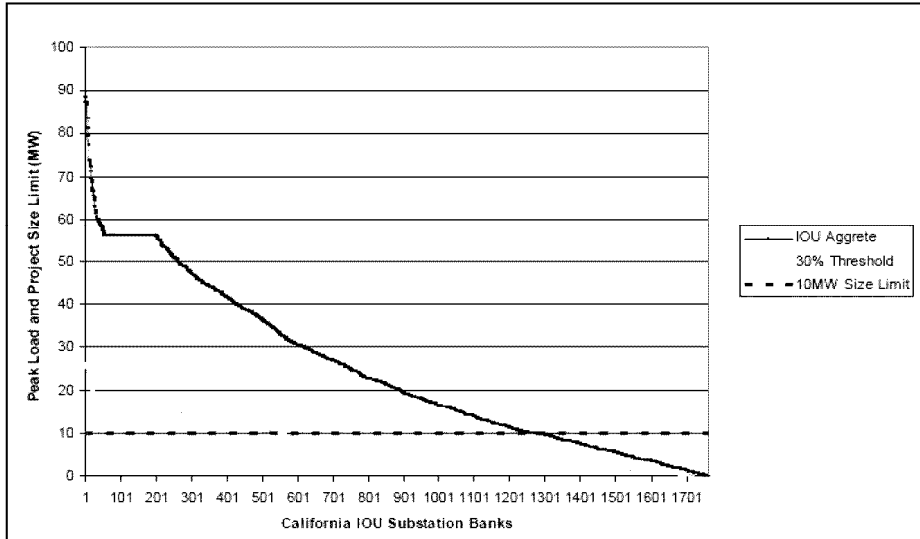
²⁰ CEC, *2007 Integrated Energy Policy Report*, December 2007, Figure 1-11, p. 27.

Comment Set B07, cont.
Californians for Renewable Energy

1
2

**Figure 1. IOU Substation Peak Loads, 30% of Peak Load,
and 10 MW Reference Line**

B07-6 cont.



3

Comment Set B07, cont.
Californians for Renewable Energy

1 **Table 1. Calculation of Distributed PV Interconnection Capacity to Existing IOU**
 2 **Substations with Minimal Interconnection Cost from Data in Figure 1**

Substation range	Number of substations	Calculation of distributed PV that could be interconnected with minimal substation upgrades (MW)	Total distributed PV potential (MW)
1-200	200	average peak ~60 MW x 0.30 = 18 MW	3,600
201-500	300	average peak ~45 MW x 0.30 = 13.5 M	4,000
501-800	300	average peak ~30 MW x 0.30 = 9 MW	2,700
801-1,000	200	average peak ~20 MW x 0.30 = 6 MW	1,200
1,001-1,600	600	average peak ~10 MW x 0.30 = 3 MW	1,800
Distributed PV total:			13,300

B07-6 cont.

3
 4 In sum, approximately 20,000 MW of distributed PV interconnection capacity is available
 5 now in California that would require little or no substation upgrading to accommodate the
 6 PV.

7
 8 **D. Cost to Upgrade Existing Distribution Substations and Associated Distribution**
 9 **Feeders to Maximize Distributed PV Deployment is Minimal**

B07-7

10 An upgrade at the substation would be necessary to accommodate the higher power flows
 11 in cases where distributed PV, concentrated on clusters of large rooftops, could provide up
 12 to 100 percent of a single substation's peak load. A typical 12 kV/69 kV substation can be
 13 upgraded to allow two-way (bidirectional) power flows for up to 100 MW of
 14 interconnected distributed PV. SDG&E estimates the cost to build a new 12 kV/69 kV
 15 substation is \$25 million.²¹

16
 17 The upgrades necessary to allow problem-free bidirectional power flow across an existing
 18 substation is far less than the cost of a new substation. The upgrade would consist of
 19 retrofitting substation metering and protective equipment from one-way power flow to
 20 bidirectional power flow. The cost of such an upgrade for a typical 100 MW distribution

²¹ Ibid, p. 5.21.

Comment Set B07, cont.
Californians for Renewable Energy

1 | substation would be approximately \$500,000.²² This is well under 1 percent of the gross
2 | capital cost of 100 MW of state-of-the-art PV at 2010 prices.
3 |
4 | Even the cost of a new 100 MW distribution substation, at \$25 million, is less than 10
5 | percent of the gross capital cost of 100 MW of state-of-the-art PV at 2010 prices. The
6 | substation upgrade cost would be relatively minor compared to the gross capital cost of 100
7 | MW of PV arrays, and would not present a substantive financial hurdle to developing a 100
8 | MW distributed PV resource concentrated in an area served by a single existing substation.
9 |
10 | The 2007 IEPR makes clear that incorporating bidirectional capability into distribution
11 | substation is a commonsense need in a smart grid environment where higher-and-higher
12 | levels of distributed generation are encouraged and expected:²³
13 |
14 | “Utilities spend approximately three-fourths of their total capital budgets on distribution
15 | assets, with about two-thirds spent on upgrades and new infrastructure in most years. These
16 | investments will remain for 20 to 30 or more years. As utilities throughout the state plan to
17 | build new distribution assets and replace old assets, the magnitude of these investments
18 | suggests that the state must understand what it is investing in and whether these
19 | investments will result in a distribution system that will serve customers in the future.
20 | Planning for investment in these assets should include requiring utilities, before
21 | undertaking investments in non-advanced grid technologies, to demonstrate that alternative
22 | investments in advanced
23 | grid technologies that will support grid flexibility have been considered, including from a
24 | standpoint of cost effectiveness.”
25 |
26 | The CPUC assumes that larger PV arrays will be connected directly to the substation low-
27 | side (12 kV) load bank. SDG&E estimated that the cost of a 10 MW feeder is \$0.6 million

B07-7 cont.

²² E-mail from M. Martyak, PowerSecure (www.powersecure.com), to B. Powers, Powers Engineering, January 13, 2010. Approximate cost to upgrade older 100 MW distribution substation to full bidirectional flow, assuming four 25 MW load banks with four circuit breakers each (16 total), would be \$400,000 to \$450,000.

²³ CEC, *2007 Integrated Energy Policy Report*, December 2007, pp. 155-156.

Comment Set B07, cont. Californians for Renewable Energy

1 per mile.²⁴ The cost of a 3-mile long dedicated feeder from multiple rooftop PV arrays with
2 a combined capacity of 10 MW to the low-side bus of the substation would be less than \$2
3 million based on SDG&E's cost estimate.

B07-7 cont.

4
5 The current capital cost for state-of-the-art commercial rooftop PV is approximately
6 \$3,700/kW_{ac}. The gross capital cost of 10 MW of rooftop PV at current prices would be
7 \$3,700/kW x (1,000 kW/MW) x 10 MW = \$37 million. The cost to construct a dedicated
8 feeder to interconnect 10 MW of rooftop PV would be approximately 5 percent of the gross
9 project capital cost. This is a relatively minor cost and represents no financial impediment
10 to developing urban rooftop PV resources.

11
12 **E. There Is No Security Justification for IOU's Withholding Information on**
13 **Substation Capacities and Locations from Private PV Developers, and No Economic**
14 **or Technical Justification for Failure to Incorporate Smart Grid Features in New and**
15 **Upgraded Distribution Substations**

B07-8

16 The GSEP RSA notes that accommodating large quantities of distributed generation PV
17 located at customer sites efficiently and cost-effectively will require the development of a
18 new, transparent distribution planning framework (p. B.2-70). Transparent distribution
19 planning by the IOUs is a reasonable expectation. Lack of transparent distribution planning
20 is not a credible justification by an IOU or the CEC to reject distributed PV as a substitute
21 for GSEP.

22
23 The CEC is already on record advocating that IOUs must incorporate smart grid elements,
24 including bidirectional power flow, into new and upgraded distribution substations.²⁵ It
25 would likely come as a surprise to most California ratepayers that it is not already standard
26 practice for California IOUs to incorporate bidirectional power flow capability into any
27 new distribution substation or major upgrade of an existing substation. As noted,
28 approximately 20,000 MW of distributed PV can flow into California distribution
29 substations without retrofitting these substations for bidirectional power flow. The lack of

²⁴ Application No. 06-08-010, Matter of the Application of San Diego Gas & Electric Company (U-902-E) for a Certificate of Public Convenience and Necessity for the Sunrise Powerlink Transmission Project, Chapter 5: Prepared Rebuttal Testimony of SDG&E in Response to Phase 2 Testimony of Powers Engineering, March 28, 2008, p. 5.20.

²⁵ CEC, 2007 Integrated Energy Policy Report, December 2007, pp. 155-156.

Comment Set B07, cont.
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B07-8 cont.

1 | bidirectional power flow capability on California distribution substations is not a short- or
2 | mid-term impediment to maximizing distributed PV deployment.
3 |
4 | However, at some point over the operational lifetime of a new or upgraded distribution
5 | substation it is prudent to assume that failure to equip the substation to accommodate
6 | bidirectional power flow will act as an artificial brake on the quantity of distributed PV the
7 | substation can accept. Equipping a distribution substation for bidirectional power flow is
8 | not expensive, costing in the range of \$500,000 for a typical 100 MW distribution
9 | substation. Failure of IOUs to incorporate smart grid features as standard elements in new
10 | and upgraded distribution substations is not a credible justification by an IOU or the CEC
11 | to reject distributed PV as a substitute for GSEP.
12 |
13 | The rationale put forth for restricting information to private distributed PV project
14 | developers includes “Providing details on distribution system could compromise homeland
15 | security” and “Information on peak loads and system configuration may be considered
16 | commercially sensitive.”²⁶ There is no sound basis for these two justifications.
17 |
18 | In the first instance, climate change is seen as a major threat to national security by the U.S.
19 | defense establishment.²⁷ Withholding information that would allow rapid progress on
20 | addressing climate change on homeland security grounds is contrary to the national
21 | security interest. Secondly, all IOU expenditures are passed on to customers. The
22 | withholding of information on peak loads and system configuration by the IOU to protect
23 | unsubstantiated commercial sensitivity concerns, to the extent it prevents the rapid
24 | deployment of competitively-bid distributed PV in urban centers at or near the point-of-
25 | use, would have a potentially substantial negative impact on ratepayers and slow progress
26 | on addressing climate change.
27 |
28 | Much of the necessary information is already in the public domain in some form and
29 | should be compiled and made available to distributed PV developers in a transparent and

²⁶ E3 and Black & Veatch, *Straw proposal of solution to address short-term problem of information gap*, presentation at CPUC Re-DEC Working Group Meeting, December 9, 2009, p. 9. Online at: <http://www.cpuc.ca.gov/PUC/energy/Renewables/Re-DEC.htm>

²⁷ New York Times, *Climate Change Seen as Threat to U.S. Security*, August 9, 2009.

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1 efficient format. For example, the CPUC already has the data on IOU substation
2 interconnection limitations as shown in Figure 1. Another example is information on the
3 location of IOU substations. Maps showing the location of all IOU substations are readily
4 available for purchase from the CEC Cartography Unit.
5
6 The province of Ontario (Canada) makes publicly-available information on substation
7 location and available capacity to facilitate the development of distributed PV in the
8 province.²⁸ This same information protocol should be followed by California IOUs.
9
10 Finally, SCE must provide this type of information to third-party PV developers for the 250
11 MW private PV developer set-aside component of its 500 MW urban PV project approved
12 by the CPUC in June 2009.

B07-8 cont.

14 **F. There is Sufficient Existing Large Commercial Roof Space in PG&E and SCE** 15 **Territories to Build at Least Thirty GSEP Plants**

B07-9

16 The 2009 IEPR Final Committee Report recognizes the huge technical potential of rooftop
17 distributed PV to meet California's renewable energy targets, stating:²⁹
18
19 "Recent studies indicate substantial technical potential for distribution-level generation
20 resources located at or near load. A 2007 estimate from the Energy Commission suggests
21 that there is roof space for over 60,000 MW of PV capacity, although the study did not
22 factor in roof space that is shaded or being used for another purpose."
23
24 60,000 MW is approximately the peak summertime load for all of California, and 250
25 times the 250 MW capacity of GSEP. It is important to note that the 2009 IEPR document
26 is incorrect in asserting the 2007 rooftop PV estimate did not factor in roof shading or other
27 limitations. The 60,000 MW estimate assumes only 24 percent of the rooftop of a typical
28 tilt-roof residential rooftop is available for PV, and only 60 to 65 percent of flat-roof

²⁸ E3 and Black & Veatch, *Straw proposal of solution to address short-term problem of information gap*, presentation at CPUC Re-DEC Working Group Meeting, December 9, 2009, p. 8.

²⁹ CEC, *2009 Integrated Energy Policy Report (IEPR) – Final Committee Report*, December 2009, p. 193.

Comment Set B07, cont.
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B07-9 cont.

1 commercial rooftops are available for PV. The rationale for these estimates is explained in
2 the 2007 (Navigant) estimate.³⁰
3
4 The 60,000 MW rooftop PV estimate by Navigant does not account for any of the
5 distributed PV described in the Renewable Energy Transmission Initiative (RETI) process.
6 RETI is California's ongoing renewable energy transmission siting process. RETI
7 evaluated a distributed PV alternative that would produce 27,500 MWac from 20 MW
8 increments of ground-mounted PV arrays at 1,375 non-urban substations around the state.³¹
9 This is similar to the approach that PG&E is following. Constructing distributed PV arrays
10 around substations is the primary focus of PG&E's 500 MW distributed PV project.³²
11
12 Black & Veatch is the engineering contractor preparing the RETI reports. Energy &
13 Environmental Economics, Inc. (E3) is the engineering contractor that prepared the June
14 2009 CPUC preliminary analysis of the cost to reach 33 percent renewable energy by 2020.
15 These two firms now lead the CPUC's renewable distributed generation ("Re-DEC")
16 working group process. The presentation of E3 and Black & Veatch at the December 9,
17 2009 initial meeting of the Re-DEC Working Group included an estimate of over 8,000
18 MWac of large commercial roof space in SCE and PG&E service territories in close
19 proximity to existing distribution substations.³³
20
21 Black & Veatch used GIS to identify large roofs in California and count available large
22 roof area. The criteria used to select rooftops included:
23
24 • Urban areas with little available land
25 • Flat roofs larger than ~1/3 acre
26 • Assume 65 percent usable space on roof
27 • Within 3 miles of distribution substation

³⁰ See: <http://www.energy.ca.gov/2007publications/CEC-500-2007-048/CEC-500-2007-048.PDF>

³¹ Renewable Energy Transmission Initiative, *RETI Phase 1B Final Report*, January 2009, p. 6-25.

³² PG&E Application A.09-02-019, *Application of Pacific Gas and Electric Company to Implement Its Photovoltaic Program*, February 24, 2009.

³³ E3 and Black & Veatch, *Summary of PV Potential Assessment in RETI and the 33% Implementation Analysis*, presentation at Re-DEC Working Group Meeting, December 9, 2009, p. 24. Online at: <http://www.cpuc.ca.gov/PUC/energy/Renewables/Re-DEC.htm>

Comment Set B07, cont. Californians for Renewable Energy

1 The Black & Veatch estimate for PG&E territory is 2,922 MWac. The estimate for SCE
2 territory is 5,243 MWac. This is a combined rooftop PV capacity of over 8,000 MWac. The
3 combined large commercial rooftop capacity is more than 30 times the 250 MW capacity
4 of GSEP.

5
6 Large commercial rooftop PV capacity is a subset of the universe of all commercial rooftop
7 capacity, which includes medium and small commercial rooftops as well. A 2004 Navigant
8 study prepared for the Energy Foundation estimated the 2010 commercial rooftop PV
9 capacity in California at approximately 37,000 MWdc.³⁴ There is a tremendous amount of
10 commercial roof space available for PV.

11 12 **G. GSEP RSA Uses Outdated PV Cost Assumption to Erroneously Assert GSEP is** 13 **Lower Cost than Equivalent Distributed PV Capacity**

14 There is no justification for the GSEP RSA using an obsolete cost assumption to eliminate
15 large-scale distributed PV as an alternative to the GSEP. The GSEP RSA relies on the June
16 2009 CPUC *33% Renewables Portfolio Standard Implementation Analysis Preliminary*
17 *Results* assertion that the cost of a high distributed PV case is significantly higher than the
18 other 33 percent RPS alternative cases (p. B2-69). The 33 percent reference case includes
19 10,000 MW of remote central station solar plants like GSEP. The assertion that the high
20 distributed generation case is significantly higher cost than the reference case was incorrect
21 in June 2009 and is definitively obsolete in April 2011.

22
23 The CPUC erroneously assumed a distributed PV cost of over \$7/Wac in its June 2009
24 analysis.

25
26 However, the CPUC also analyzed a sensitivity case with the capital cost of fixed thin-film
27 PV at \$3.70/Wac. The CPUC determined that at \$3.70/Wac, the cost of the 33 percent
28 standard remote case and the high DG alternative are similar. RETI has confirmed that the
29 PV pricing cited by the CPUC in its sensitivity analysis is commercially available and not a
30 projection, stating, “Thin film solar PV was previously treated as a sensitivity study, but

³⁴ Navigant, *PV Grid Connected Market Potential under a Cost Breakthrough Scenario*, prepared for The Energy Foundation, September 2004, p. 83. California commercial rooftop PV potential estimated at approximately 37,000 MWp.

B07-9 cont.

B07-10

Comment Set B07, cont.
Californians for Renewable Energy

B07-10 cont.

1 due to falling costs and the increased prevalence of thin film, it is now being considered as
 2 one of the available commercial technologies in addition to tracking crystalline PV.”³⁵
 3
 4 Accurate PV pricing data has been available from the SCE urban solar PV application for
 5 over three years. SCE provided an installed cost of \$3.50/Wdc (~\$4/Wac) in its March
 6 2008 application to the CPUC to build a 250 MW urban PV project. RETI states that the
 7 commercially available thin-film PV has a capital cost range of \$3.60 to \$4/Wac, and
 8 commercially available single-axis tracking polysilicon PV has a cost range of \$4 to
 9 \$5/Wac.³⁶
 10
 11 These PV costs compare to a capital cost range for solar thermal, assumed to be dry-
 12 cooled, of \$5.35 to \$5.55/Wac. RETI indicates the capacity factor for thin-film PV is
 13 essentially the same as for dry-cooled solar thermal (assuming the same location). The
 14 capacity factor for single-axis tracking polysilicon PV is significantly better than that of
 15 dry-cooled solar thermal (assuming the same location). Operations and maintenance cost
 16 for either fixed thin-film PV or single-axis tracking polysilicon PV is lower than for dry-
 17 cooled solar thermal. This RETI data is summarized in Table 2 below.
 18

19 **Table 2. RETI Capital Cost, Capacity Factor, and O&M Cost – Dry-Cooled Solar**
 20 **Thermal, Fixed Thin-Film PV, and Single-Axis Tracking Polysilicon PV**

Solar Technology	Capital Cost (\$/kWac)	Capacity Factor (%)	O&M Cost (\$/MWh)
Dry-cooled solar thermal	5,350 – 5,550	20 – 28	30
Fixed thin-film PV	3,600 – 4,000	20 - 27	20 - 27
Single-axis tracking polysilicon PV	4,000 – 5,000	23 - 31	17 - 25

21
 22 The GSEP RSA comment on the capacity factors of solar thermal and rooftop PV is out-of-
 23 date (p. B.2-67): “The Renewable Energy Transmission Initiative (RETI) assumed a

³⁵ RETI, *Phase 2B Final Report*, May 2010, p. 4-6.

³⁶ Ibid, Tables 4-5, 4-7, 4-8, pp. 4-6 and 4-7.

Comment Set B07, cont.
Californians for Renewable Energy

B07-10 cont.

1 capacity factor of approximately 30 percent for solar thermal technologies and tracking
 2 solar PV and
 3 approximately 20 percent capacity factor for rooftop solar PV which is assumed to be
 4 non-tracking, for viable solar generation project locations (B&V 2008; CEC 2009).” As
 5 shown in Table 2, the RETI capacity factors of solar thermal and fixed (rooftop) solar PV
 6 are essentially the same assuming the same location.

7
 8 The effect of the values in Table 2 on the levelized cost-of-energy (COE) for dry-cooled
 9 solar thermal, fixed thin-film PV, and single-axis tracking polysilicon PV is shown in
 10 Table 3.³⁷ The average levelized COE for either fixed thin-film PV or single-axis tracking
 11 polysilicon PV is significantly lower than the levelized COE of dry-cooled solar thermal
 12 plants.

13 **Table 3. RETI Cost-of-Energy (COE) Comparison - Dry-Cooled Solar Thermal,**
 14 **Fixed Thin-Film PV, and Single-Axis Tracking Polysilicon PV**

Solar Technology	Levelized COE (\$/MWh)
Dry-cooled solar thermal	\$195 – 226 (mean: \$210)
Fixed thin-film PV	\$135 – 214 (mean: \$175)
Single-axis tracking polysilicon PV	\$138 – 206 (mean: \$172)

15
 16 The CPUC determined that there would be little difference in the cost of meeting state
 17 renewable energy targets by relying predominantly on distributed PV, when current state-
 18 of-the-art pricing is assumed, instead of building 10,000 MW of remote solar capacity
 19 under the 33 percent RPS reference case.³⁸ This conclusion was reached despite a number
 20 of controversial cost assumptions by the CPUC that favored the 33 percent RPS reference
 21 case.³⁹ An additional controversial assumption is the low assumed cost of new transmission
 22 to realize the 33 percent reference case. The CPUC assumed the total cost of new

³⁷ Ibid, Figure 4-1, p. 4-8.

³⁸ CPUC, *33% Renewables Portfolio Standard Implementation Analysis Preliminary Results*, June 2009, p. 31.

³⁹ RightCycle Inc. comment letter, working group member response to June 2009 *33% Renewables Portfolio Standard Implementation Analysis Preliminary Results*, in response to CPUC request for comments, August 28, 2009.

Comment Set B07, cont.
Californians for Renewable Energy

1 transmission would be \$12 billion. The current estimate is over \$27 billion.⁴⁰ When current
2 projections regarding the cost of new transmission and associated upgrades are used, the
3 high distributed generation alternative is more cost-effective than the 33 percent reference
4 case.

5
6 The RETI capital cost values for PV assume 20 MW systems located at distribution
7 substations. However, even the cost of individual commercial rooftop PV installations is
8 now lower than the RETI cost of \$5.35 to \$5.55/Wac for dry-cooled solar thermal plants.

9
10 The May 2010 DOE Solar Vision Study (draft) projection of current commercial rooftop
11 PV capital cost is provided in Figure 3.⁴¹ These capital cost values are provided in Wdc. As
12 shown in Figure 2, the current capital cost of commercial rooftop polysilicon PV (multi Si
13 and mono Si) is approximately \$4/Wdc. RETI identifies the range of dc-to-ac conversion
14 factors of 0.77 to 0.85.⁴² Using an average dc-to-ac conversion factor of 0.80, the capital
15 cost of commercial rooftop polysilicon PV is approximately $\$4/Wdc \div 0.80 = \$5/Wac$. This
16 is incrementally less than the \$5.35 to \$5.55/Wac capital cost of dry-cooled solar thermal,
17 and the commercial rooftop PV array could be as little as 1/1,000th the size of the solar
18 thermal plant. The most common form of thin-film PV, CdTe (cadmium-telluride), is lower
19 in cost than polysilicon PV at approximately \$3.60/Wdc. This converts to $\$3.60/Wdc \div$
20 $0.80 = \$4.50/Wac$.

21 **Figure 2. Cost of Commercial Rooftop PV Identified by DOE**

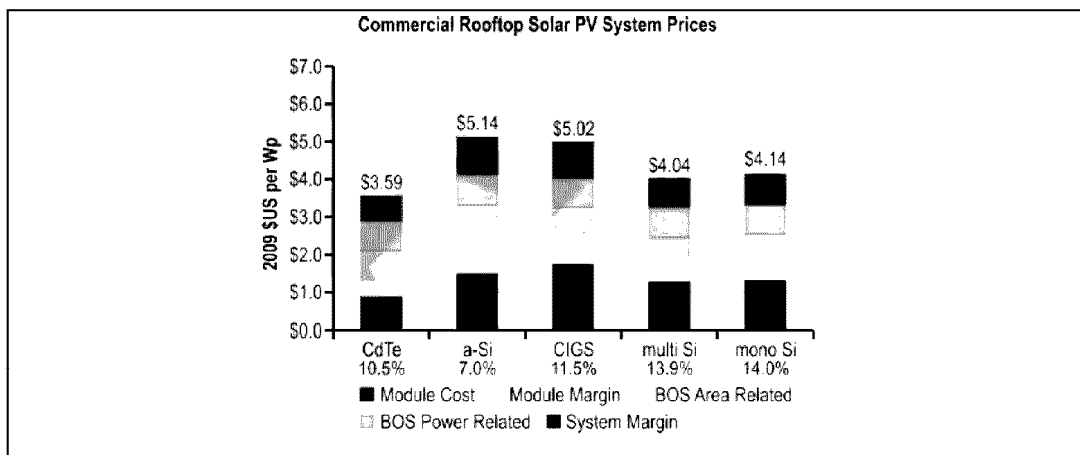
B07-10 cont.

⁴⁰ J. Firooz, P.E., CAISO: *How Its Transmission Planning Process has Lost Sight of the Public's Interest*, April 2010, Table 2, p. 10. Total new transmission and upgrades necessary to realize 33 percent RPS reference case as of September 2009 - \$27.544 billion.

⁴¹ DOE, *DOE Solar Vision Study – DRAFT*, May 28, 2010, Chapter 4, Figure 4-4, p. 7.

⁴² RETI, *Phase 1A Final Report*, August 2008, Appendix B, p. 5-5.

Comment Set B07, cont.
Californians for Renewable Energy



B07-10 cont.

1 a-Si: amorphous silicon thin-film PV; CIGS: copper-indium-gallium-selenide thin-film PV.

2

3 **H. Market Price Referent with Adjustment for Time-of-Delivery would be Sufficient**
 4 **Price to Assure Rapid Construction of 250 MW Distributed PV Alternative to GSEP**

B07-11

5 The CPUC has established that the levelized cost-of-energy (LCOE) from a new natural
 6 gas-fired combined cycle unit is the representative market price of electricity that
 7 renewable energy resource costs are compared to in the California RPS program. This
 8 representative LCOE is called the “Market Price Referent - MPR.”⁴³ The MPR consists of
 9 the LCOE for a new combined cycle plant plus an adder of \$15 per ton of CO₂ emissions.⁴⁴
 10 The concept behind the MPR is that ratepayers should be protected from excessive green
 11 energy costs by requiring that renewable energy resources be no more costly than the
 12 conventional brown power they will replace.

13

14 Combined cycle units operate as intermediate-load plants in California. They typically
 15 operate at capacity factors of 60 to 70 percent.⁴⁵ The fleet average capacity factor in 2008
 16 was 65 percent.^{46,47} “Capacity factor” is a measure of actual annual electricity production

⁴³ MPR is the cost-of-energy for a new natural gas-fired combined cycle that includes a greenhouse gas emissions adder. See CPUC MPR website: <http://www.cpuc.ca.gov/PUC/energy/Renewables/mpr>

⁴⁴ CPUC MPR webpage, 2009 MPR Documents, 2009 MPR Model, Appendix F – Non-Gas Inputs: <http://www.cpuc.ca.gov/PUC/energy/Renewables/mpr>

⁴⁵ William Marcus, JBS Energy, Inc. on behalf of TURN, *MPR Capacity Factor*, PowerPoint presentation given at CPUC MPR workshop, R.06-02-012, March 27, 2008.

⁴⁶ CEC, *Comparative Costs of California Central Station Electricity Generation*, January 2010, p. C-12. Table C-5: Combined Cycle Facility Capacity Factors. Average capacity factor for 15 California combined cycle plants in 2008 is 65 percent.

⁴⁷ CPUC assumes 65% capacity factor for combined cycle units in *Inputs and Assumptions to 33% Renewables Portfolio Standard Implementation Analysis*, prepared by E3 for CPUC, July 2009.

Comment Set B07, cont.
Californians for Renewable Energy

B07-11 cont.

1 compared to maximum possible output if the unit is operated every hour of the year at
2 maximum output. Combined cycle units generally do not operate during off-peak, low
3 demand periods. Low demand periods include midnight to 6 am most workdays as well as
4 weekends. Lower-cost nuclear, large hydroelectric, and coal plants are available to meet
5 the need during these periods. Combined cycle units are not the high-cost generation
6 resource during summer peak periods, as simple cycle peaking turbines and older
7 conventional steam plants with higher operating costs are online.

8
9 A representative avoided cost for a solar PV system in PG&E service territory can be
10 calculated using: 1) the MPR, adjusted to reflect a typical 65 percent capacity factor for a
11 combined cycle plant and adjusted for the TOD of solar generation, and 2) the line losses
12 and transmission and distribution (T&D) costs that are avoided by the typical solar PV
13 system.

14
15 The CPUC and the CEC have both developed estimates of the LCOE for a new 500 MW
16 combined cycle plant. The CPUC derived its combined cycle installed cost estimate by
17 looking at three projects that were either operational (Palomar, Consumnes) or under
18 construction (Colusa) at the time 2009 MPR was developed.⁴⁸ The dates of the installed
19 cost estimates for these projects are: Palomar – June 2004, Consumnes – January 2006, and
20 Colusa – February 2008. The 2009 MPR calculation assumes a January 2010 online date.

21
22 In contrast, the CEC used a non-project specific combined cycle pricing model to develop
23 LCOE projections for 2009 and 2018 online dates.⁴⁹ The CEC also examines a range of
24 capacity factors. LCOE projections were developed for capacity factors of 55 percent, 75
25 percent, and 90 percent for an unfired 500 MW combined cycle unit. LCOE projections
26 were also developed for capacity factors of 50 percent, 70 percent, and 85 percent for a
27 duct-fired 550 MW combined cycle unit.⁵⁰

28

⁴⁸ CPUC MPR webpage, 2009 MPR Documents, 2009 MPR Model, “Install_Cap” tab:

<http://www.cpuc.ca.gov/PUC/energy/Renewables/mpr>.

⁴⁹ CEC, *Comparative Costs of California Central Station Electricity Generation*, January 2010, Appendix B.

⁵⁰ Ibid, Tables 11 - 13.

Comment Set B07, cont.
Californians for Renewable Energy

B07-11 cont.

1 The CPUC currently assumes a hypothetical capacity factor of 92 percent for a combined
 2 cycle unit when calculating the MPR.⁵¹ However, the CPUC uses a capacity factor of 65
 3 percent when calculating the actual expected electricity production from California’s fleet
 4 of combined cycle plants.⁵² The effect of using the unrealistically high capacity factor of 92
 5 percent in the MPR calculation is to make the MPR reference price artificially low. The
 6 effect of capacity factor on the LCOE for a new 500 MW combined cycle plant is shown in
 7 Table 4 using the CEC combined cycle LCOE estimates.⁵³

8
 9 Use of a MPR based on a 65 percent capacity factor would accurately reflect typical usage
 10 rates of operating combined cycle plants in California. This value is \$134/MWh for an
 11 online date of 2009, and is projected by the CEC to rise to \$183/MWh for an online date of
 12 2018. Powers Engineering has taken the mid-point between these two values to estimate
 13 the MPR for an online date in the 2013 to 2014 timeframe. This MPR value is \$158/MWh.

14
 15 Four new gas-fired power plants have PPAs and are planned for construction over the next
 16 few years in Northern California alone. The proposed start dates for 600 MW Russell City,
 17 624 MW Oakley, 760 MW Marsh Landing, and 200 MW Mariposa are 2013, 2016, 2013,
 18 and 2012 respectively.⁵⁴ Given the average start-up date for this gas-fired capacity that
 19 could be substituted with DG is 2013 to 2014, the appropriate MPR value is for a combined
 20 cycle unit that will be online in 2013 or 2014. This is an MPR of \$158/MWh.

21
 22

Table 4. Effect of Capacity Factor on LCOE from New Combined Cycle Plant

Capacity factor (%)	LCOE, 2009 (\$/MWh)	LCOE, 2013/2014 (\$/MWh)	LCOE, 2018 (\$/MWh)
92	118	140	161
75	124	147	169

⁵¹ CPUC MPR webpage, 2009 MPR Documents, 2009 MPR Model:

<http://www.cpuc.ca.gov/PUC/energy/Renewables/mpr>.

⁵² CPUC assumes 65 percent capacity factor for combined cycle units in *Inputs and Assumptions to 33% Renewables Portfolio Standard Implementation Analysis*, prepared by E3 for CPUC, July 2009.

⁵³ CEC, *Comparative Costs of California Central Station Electricity Generation*, January 2010, Table 1, Table 5, Figure A-8. A 500 MW unfired merchant combined cycle plant with a 75 percent capacity factor is the average case in the CEC report. Note – the dates shown in the table, 2009 and 2018, are commercial start dates.

⁵⁴ CPUC Application A.09-09-021, Application by PG&E for Approval of 2008 Long-Term Request for Offers Results, *Alternate Proposed Decision of Commissioner Bohm*, November 2, 2010.

Comment Set B07, cont.
Californians for Renewable Energy

65	134	158	183
55	146	173	199

B07-11 cont.

1 Note: CEC provides LCOE values for online dates of 2009 and 2018. The values included
2 for 2013/2014 were calculated by Powers Engineering and are the average of the 2009 and
3 2018 values.

4
5 SCE applies a TOU factor for PV of 1.32.⁵⁵ The adjusted MPR for PV, which includes the
6 time-of-delivery value of PV, is $1.32 \times \$158/\text{MWh} = \$209/\text{MWh}$ (\$0.209/kWh).

7
8 The T&D system is designed to meet peak demand loads. The addition of distributed
9 generation of any kind that reduced demand on the T&D system under peak conditions
10 either delays or eliminates the need for existing substation upgrades or new T&D
11 infrastructure. Energy and Environmental Economics, Inc. (E3), a CPUC contractor,
12 developed the model adopted by the CPUC to determine the T&D avoided costs associated
13 with energy efficiency programs.⁵⁶ The approximate weighted average (population based)
14 T&D benefit of energy efficiency programs in PG&E territory is about \$20/MWh.⁵⁷

15
16 *California Solar Initiative* fixed PV systems in PG&E service territory have a demonstrated
17 availability during the 4-5 pm peak hour of summer demand of more than 50 percent.⁵⁸ The
18 peak availability of fixed PV is conservatively assumed to be 50 percent in this cost
19 calculation. The full avoided T&D value of \$20/MWh must be multiplied by 0.50 to
20 accurately reflect the avoided T&D value of fixed PV. This means that the solar PV T&D
21 avoided cost would be \$10/MWh, or \$0.10/kWh.

22

⁵⁵ CPUC A.10-03-012, Application of PG&E to Implement Assembly Bill 920 (2009) Setting Terms and Conditions for Compensation for Excess Energy Deliveries by Net Metered Customers, *Proposal of the Solar Alliance and Vote Solar Initiative for a Net Surplus Compensation Rate and Responses to Scoping Memo Questions*, June 21, 2010, Table 2, p. 4.

⁵⁶ CPUC R.06-02-12, Rulemaking to Develop Additional Methods to Implement the California Renewables Portfolio Standard Program, *Pre-Workshop Comments of GreenVolts, Cleantech America, and Community Environmental Council on the 2008 Market Price Referent*, March 6, 2008, p.15. Table - E3 Model T&D Values (Levelized 20-year in 2008\$).

⁵⁷ Ibid.

⁵⁸ Itron, *CPUC Self-Generation Incentive Program—Ninth-Year Impact Evaluation Report – Final Report*, submitted to PG&E, June 2010, Table 5-14, p. 5-32. PG&E peak hour fixed PV capacity factor in 2009 was 54 percent, July 14, 2009, 4-5 pm.

Comment Set B07, cont. Californians for Renewable Energy

1 An MPR-adjusted price of \$0.209/kWh, plus an average transmission & distribution
2 benefit of approximately \$0.010/kWh, is equivalent to an overall value to the IOU of
3 approximately \$0.22/kWh. Any price paid for distributed PV by an IOU below this price
4 threshold should result in a net benefit to all of the IOU's ratepayers. A distributed PV
5 price in the range \$0.22/kWh would be more than sufficient to create a dynamic market for
6 third party development of large-scale distributed PV in California urban areas.

B07-11 cont.

7 8 **I. Rooftop Commercial PV is More Space Efficient than GSEP and has None of the** 9 **Environmental Impacts of GSEP**

B07-12

10 The GSEP RSA states, without citation: "However, based on SCE's use of 600,000-square-
11 feet for 2 MW(ac) of energy, 75 million square feet (approximately 1,750 acres) would be
12 required for 250 MW" (p. B2-67). SCE states in its March 2008 solar PV program
13 testimony that 125,000 square feet of polysilicon panels are required to generate 1
14 MWdc.⁵⁹ This converts to about 150,000 square feet per MWac, or approximately 3.5 acres
15 per MWac.⁶⁰ This is one-half the square-footage per MWac that the GSEP RSA
16 erroneously attributes to SCE rooftop installations. SCE has signed contracts with
17 SunPower and Trina Solar, both suppliers of polysilicon PV panels, to provide a combined
18 total of 245 MW of the 250 MW of PV capacity that will be owned by SCE.^{61,62}

19
20 Rooftop PV is also approximately twice as space efficient as the GSEP project. The GSEP
21 RSA states that 1,800 acres will be developed to produce 250 MWac (p. B1-2). This is
22 more than 7 acres per MWac.

23
24 The predominant advantage of rooftop (or parking lot) PV is that it represents a compatible
25 dual use of existing developed structures with no environmental impacts. As the GSEP
26 RSA correctly notes, "Distributed solar PV is assumed to be located on already existing
27 structures or disturbed areas so little to no new ground disturbance would be required and
28 there would be few associated biological impacts" (p. B.2-68).

⁵⁹ SCE Application A.08-03-015, *Solar Photovoltaic (PV) Program Testimony*, March 27, 2008, p. 32.

⁶⁰ There are 43,560 square feet per acre. Therefore, 150,000 square feet per MWac ÷ 43,560 square feet per acre = 3.44 acre/MWac.

⁶¹ SNL Financial, *SoCalEd orders 200 MW of solar panels, plans solicitation for 250 MW more*, March 10, 2010.

⁶² SNL Financial, *SoCalEd taps Trina Solar to supply 45 MW of PV modules*, June 9, 2010.

Comment Set B07, cont.
Californians for Renewable Energy

B07-13

1
2 **J. GSEP RSA Concerns about Sufficient PV Panel Manufacturing Capacity Are**
3 **Baseless**
4 The concerns expressed in the GSEP RSA regarding the availability of distributed solar PV
5 are without foundation. The GSEP RSA states (p. B.2-70): “While it will very likely be
6 possible to achieve 250 MW of distributed solar energy over the coming years, the very
7 limited number of existing facilities make it difficult to conclude with confidence that it
8 will happen within the timeframe required for the GSEP. As a result, this technology is
9 eliminated from detailed analysis in this GSEP RSA.” Over 21,000 MW of PV systems,
10 most of them distributed PV systems, were operational worldwide by the end of 2009.⁶³
11 More than 7,000 MW of PV was installed worldwide in 2009 alone.⁶⁴ In contrast, only 127
12 MW of solar thermal plants were constructed in 2009.⁶⁵
13
14 Thin-film PV manufacturing capacity is projected to reach 7,400 MW per year in 2010.⁶⁶
15 First Solar alone manufactured and shipped more than 1,000 MW of thin-film panels in
16 2009.⁶⁷
17
18 Worldwide conventional polysilicon PV production capacity reached 13,300 MW a year in
19 2008.⁶⁸ It is projected to reach 20,000 MW a year in 2010. The 2010 projections were
20 made just as the economic slump began in late 2008. It is likely there will be some scale-
21 back on the 2010 capacity additions due to the state of the world economy. Nonetheless,
22 there is a tremendous amount of available worldwide PV manufacturing capacity.
23
24 PV panel manufacturing capacity has greatly expanded worldwide in the last 2 to 3 years.
25 The current estimated oversupply of PV panel manufacturing capacity for 2010 is 8,000

⁶³ Worldwatch Institute, *Record Growth in Photovoltaic Capacity and Momentum Builds for Concentrating Solar Power*, June 3, 2010.

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ Schreiber, D. - EuPD Research, *PV Thin-film Markets, Manufacturers, Margins*, presentation at 1st Thin-Film Summit, San Francisco, December 1-2, 2008.

⁶⁷ First Solar press release, *First Solar Becomes First PV Company to Produce 1GW in a Single Year*, December 15, 2009.

⁶⁸ Schreiber, D. - EuPD Research, *PV Thin-film Markets, Manufacturers, Margins*, presentation at 1st Thin-Film Summit, San Francisco, December 1-2, 2008.

Comment Set B07, cont. Californians for Renewable Energy

1 MW.⁶⁹ As a result of this oversupply, the cost of conventional polysilicon PV panels has
2 dropped precipitously and is approaching the cost of thin-film PV panels (see Figure 3).
3
4 The GSEP RSA states that California added 158 MW of distributed PV in 2008 (p. B.2-
5 66). California is a relatively minor player on the world PV stage. Spain added
6 approximately 2,500 MW of primarily distributed ground-mounted PV resources in 2008.⁷⁰
7 Spain has a smaller economy than California. Germany, approximately the same size as
8 California and with considerably lower solar intensity, added approximately 1,500 MW of
9 distributed PV resources in 2008 and 3,800 MW in 2009.^{71,72} Germany had an installed PV
10 capacity of nearly 9,000 MW at the end of 2009 and has set a target PV installation rate of
11 3,500 MW per year.⁷³
12
13 The GSEP RSA expresses concerns regarding the feasibility of California doubling its 158
14 MW per year (2008) distributed PV installation rate as a substitute for GSEP, stating (p.
15 B.2-69): “This would require an even more aggressive deployment of PV at more than
16 double the historic rate of solar PV implementation than the California Solar Initiative
17 program currently employs.” This doubling of distributed PV deployment is equivalent to
18 going from 1/20th to 1/10th the current German distributed PV installation rate. The
19 feasibility concern expressed in the RSA is unfounded in light of German success with a
20 high rate of distributed PV deployment.
21
22 The high distributed PV alternative studied by the CPUC anticipates the installation of
23 15,000 MW of distributed PV by 2020.⁷⁴ RETI has gradually dropped the amount of new
24 renewable energy resources needed to reach 33 percent by 2020, the “net short,” from
25 74,650 gigawatt-hours (GWh) per year initially to a current “low load” net short of 36,926

B07-13 cont.

⁶⁹ B. Murphy – Fulcrum Technologies, Inc., *The Power and Potential of CdTe (thin-film) PV*, presented at 2nd Thin-Film Summit, San Francisco, December 1-2, 2009.

⁷⁰ PV Tech, *Worldwide photovoltaics installations grew 110% in 2008, says Solarbuzz*, March 16, 2009.

⁷¹ PV Tech, *German market booming: Inverter and module supplies running out at Phoenix Solar*, November 15, 2009.

⁷² Worldwatch Institute, *Record Growth in Photovoltaic Capacity and Momentum Builds for Concentrating Solar Power*, June 3, 2010.

⁷³ Chadbourne & Parke Project Finance Newswire, *Germany Cuts Solar Subsidy*, April 2010.

⁷⁴ CPUC, *33% Renewables Portfolio Standard Implementation Analysis Preliminary Results*, June 2009.

Comment Set B07, cont.
Californians for Renewable Energy

1 MW.⁷⁵ The low load net short is one-half the net short used by the CPUC in June 2009 to
2 estimate the cost of achieving 33 percent by 2020. 15,000 MW of distributed PV would
3 provide about 30,000 GWh/yr.⁷⁶ 15,000 MW of distributed PV would provide over 80
4 percent of the low load net short of 36,926 MW.

B07-13 cont.

5
6 California could easily install 15,000 MW of distributed PV by 2020 if it approached the
7 annual distributed PV installation rates that have already been achieved in practice in Spain
8 and Germany. Existing worldwide PV manufacturing capacity, either thin-film alone or
9 thin-film and conventional polysilicon, could readily supply a PV demand of 1,500 to
10 2,500 MW a year in California.

11
12 **K. Slight Reduction in Output from Distributed PV in Los Angeles, Central Valley,**
13 **or Bay Area Is Offset by Transmission Losses from GSEP to These Load Centers**

B07-14

14 The GSEP RSA implies that the superior solar intensity at the GSEP location in the Mojave
15 Desert is a substantive reason for eliminating distributed PV from consideration, stating (p.
16 B.2-67):

17
18 “The location of the distributed solar PV would impact the capacity factor of the distributed
19 solar PV. Capacity factor depends on a number of factors including the insolation of the
20 site. Because a distributed solar PV alternative would be located throughout the state of
21 California, the insolation at some of these locations may be less than in the Mojave
22 Desert.”

23
24 The solar insolation at the GSEP site is about 10 to 15 percent better than the composite
25 solar insolation for Los Angeles, the Central Valley, and Oakland.^{77,78} However, the CEC

⁷⁵ RETI discussion draft, *RETI Net Short Update - Evaluating the Need for Expanded Electric Transmission Capacity for Renewable Energy*, February 22, 2010. Low load scenario, net short = 36,926 MW.

⁷⁶ The CPUC reference case assumes 3,235 MW of solar PV will generate 6,913 GWh per year under ideal Southern California desert solar insolation conditions. This is a production ratio of 2,137 GWh per MWac. However, solar insolation in the Central Valley and California urban areas will on average be approximately 10 less than ideal desert sites. For this reason a production ratio of 2,000 GWh per year per MWac is assumed for the Central Valley and urban areas.

⁷⁷ U.S. DOE, *Stand-Alone Flat-plate Photovoltaic Systems: System Sizing and Life-Cycle Costing Methodology for Federal Agencies*, 1984, Appendix, p. A-27.

⁷⁸ NREL, *Solar Radiation Data Manual for Flat-Plate and Concentrating Collectors*, California cities data: <http://rredc.nrel.gov/solar/pubs/redbook/PDFs/CA.PDF>

Comment Set B07, cont. Californians for Renewable Energy

1 estimates average transmission losses in California at 7.5 percent and peak transmission
2 losses at 14 percent.⁷⁹ The incrementally better solar insolation at the GSEP site is almost
3 completely negated by the losses incurred by transmitting GSEP solar power to California
4 urban areas. In contrast, distributed PV has minimal losses between generation and user.

B07-14 cont.

6 **L. CEC Has Already Determined Distributed PV Can Compete Cost-Effectively with** 7 **Other Forms of Generation**

B07-15

8 The CEC denied an application for a 100-megawatt natural-gas-fired gas turbine power
9 plant, the Chula Vista Energy Upgrade Project (CVEUP), in June 2009 in part because
10 rooftop solar PV could potentially achieve the same objectives for comparable cost.⁸⁰

11
12 This June 2009 CEC decision implies that any future applications for gas-fired generation
13 in California, or any other type of generation including remote central station renewable
14 energy generation like GSEP that require public land and new transmission to reach
15 demand centers, should be measured against using urban PV to meet the power need. The
16 CEC's final decision in the CVEUP case stated.⁸¹

17
18 "Photovoltaic arrays mounted on existing flat warehouse roofs or on top of vehicle
19 shelters in parking lots do not consume any acreage. The warehouses and parking lots
20 continue to perform those functions with the PV in place. (Ex. 616, p. 11.)...Mr.
21 Powers (expert for intervenor) provided detailed analysis of the costs of such PV,
22 concluding that there was little or no difference between the cost of energy provided by
23 a project such as the CVEUP (gas turbine peaking plant) compared with the cost of
24 energy provided by PV. (Ex. 616, pp. 13 – 14.)...PV does provide power at a time
25 when demand is likely to be high—on hot, sunny days. Mr. Powers acknowledged on
26 cross-examination that the solar peak does not match the demand peak, but testified that
27 storage technologies exist which could be used to manage this. The essential points in
28 Mr. Powers' testimony about the costs and practicality of PV were uncontroverted."
29

⁷⁹ E-mail communication between Don Kondoleon, manager - CEC Transmission Evaluation Program, and Bill Powers of Powers Engineering, January 30, 2008.

⁸⁰ CEC, Chula Vista Energy Upgrade Project - Application for Certification (07-AFC-4) San Diego County, *Final Commission Decision*, June 2009.

⁸¹ *Ibid*, pp. 29-30.

Comment Set B07, cont.
Californians for Renewable Energy

1 || The CEC concluded in the CVEUP final decision that PV arrays on rooftops and over
2 || parking lots may be a viable alternative to the gas turbine project proposed in that case, and
3 || that if the gas turbine project proponent opted to file a new application a much more
4 || detailed analysis of the PV alternative would be required.

B07-15 cont.

Comment Set B07, cont.
Californians for Renewable Energy

B07-16

1 **IV. Locating GSEP in the Proposed Westlands Water District CREZ would Avoid**
2 **Environmental Impacts at the GSEP Site**
3
4 The Westlands Water District (“Westlands”), on the west side of the Central Valley, is
5 undergoing study by RETI as a Competitive Renewable Energy Zone (CREZ) capable of
6 providing 5,000 MW of utility-scale solar development. Westlands covers over 600,000
7 acres of farmland in western Fresno and Kings Counties. The proposed “Central California
8 Renewable Master Plan” will utilize permanently retired farmlands in Westlands for solar
9 development. An overview of this master plan is attached. As stated in the master plan
10 overview, “Due to salinity contamination issues, a portion of this disturbed land has been
11 set aside for retirement and will be taken out of production under an agreement between
12 Westlands and the U.S. Department of Interior.” Approximately 30,000 acres of disturbed
13 Westlands land, equivalent to 5,000 MW of solar capacity, will be allocated for renewable
14 energy development under the plan.
15
16 Transmission Pathway 15 passes through Westlands. Path 15 can transmit 5,400 MW from
17 south-to-north.⁸² The transmission capacity from north-to-south is 3,400 MW. The location
18 of Westlands relative to Path 15 is shown in Figure 3.

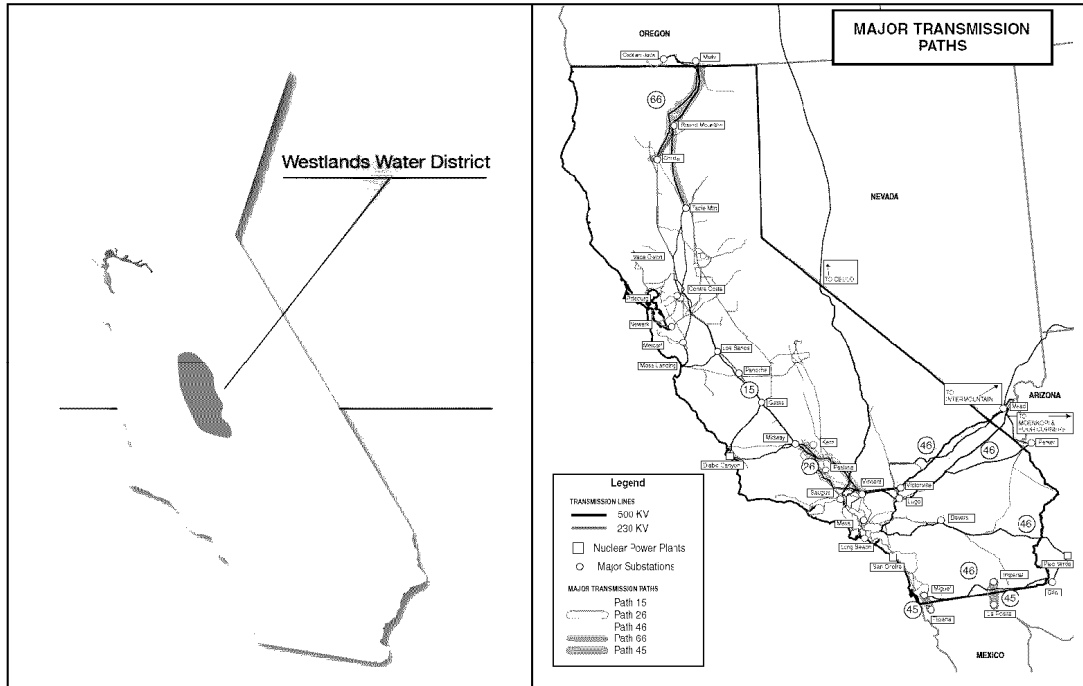
19
20 **Figure 3. Location of Westlands Water District and Path 15^{83,84}**

⁸² Transmission & Distribution World, California bulks up to provide more transmission capacity, June 1, 2004.

⁸³ Anthem Group press release, Central California Renewable Master Plan, March 2010.

⁸⁴ CEC, *Strategic Transmission Investment Plan*, November 2005, p. 11.

Comment Set B07, cont.
Californians for Renewable Energy



B07-16 cont.

1
 2 5,000 MW of solar power can be developed in Westlands with potentially no expansion of
 3 the existing Path 15 high voltage transmission capacity that serves Westlands now.
 4
 5 5,000 MW is half of the total remote in-state utility-scale solar contemplated in the June
 6 2009 CPUC 33 percent reference case.⁸⁵ The remote in-state solar component of the
 7 reference case consists of 3,235 MW central station PV and 6,764 MW central station solar
 8 thermal. The anticipated energy output of 5,000 MW of fixed PV in Westlands would be
 9 about 10,000 GWh/yr.⁸⁶ This is approximately 30 percent of the RETI low load net short of
 10 36,926 MW.
 11
 12 The GSEP RSA states that the Gabrych disturbed lands alternative near the GSEP site does
 13 not meet project objectives due to the inability to assure site control of multiple private
 14 parcels by the end of 2010 (p. B.2-53). Site control would not be an issue in the proposed

⁸⁵ CPUC, *33% RPS Implementation Analysis Preliminary Results*, June 2009, Appendix C, p. 87.

⁸⁶ The CPUC reference case assumes 3,235 MW of solar PV will generate 6,913 GWh per year under ideal Southern California desert solar insolation conditions. This is a production ratio of 2,137 GWh per MWac. However, solar insolation in the Central Valley and California urban areas will on average be approximately 10 less than ideal desert sites. For this reason a production ratio of 2,000 GWh per year per MWac is assumed for the Central Valley and urban areas.

Comment Set B07, cont.
Californians for Renewable Energy

1 Westlands CREZ. Westlands is actively marketing the 30,000-acre area for development of
2 central station solar power plants. Development of solar projects on the Westlands property
3 is intended (by Westlands) to serve as a source of income on land that has been
4 permanently retired from agricultural production.

B07-16 cont.

5
6 Prioritizing distributed PV projects, combined with the location of central station solar
7 projects in Westlands, would allow California to achieve its 33 percent by 2020 renewable
8 energy target with almost no environmental impacts related to the solar energy component
9 of the renewable energy portfolio.

10
11 **V. Conclusions**

B07-17

12
13 The DPV2 Draft Supplemental EIR is inadequate for failure to conduct an analysis of non-
14 transmission alternatives to the DPV2. In contrast, the Draft and October 2008 Final
15 EIR/EIS prepared by the CPUC and BLM for SDG&E's proposed Sunrise Powerlink
16 transmission line includes voluminous analysis of multiple non-transmission alternatives to
17 the proposed project. The CPUC/BLM Final EIR/EIS for the Sunrise Powerlink concluded
18 that either of the two non-transmission in-basin alternatives studied were environmentally
19 superior to the proposed project or any transmission alternative to the proposed project.
20 The DPV2 Draft Supplemental EIR avoids a similar conclusion by failing to analyze in
21 detail any non-transmission alternative to the DPV2.

22
23 This comment letter uses comments provided by Powers Engineering on alternatives to
24 GSEP as a case study to show that non-transmission alternatives are more cost-effective
25 than the solar thermal projects that DPV2 is being built to serve. The GSEP RSA analysis
26 of the distributed PV alternative to GSEP used flawed logic and outdated data to
27 improperly eliminate distributed PV as an alternative. The DPV2 Draft Supplemental EIR
28 contains no analysis of any kind. Distributed PV is a fully viable and cost-effective
29 alternative that eliminates the environmental impacts that would be caused by the DPV2
30 transmission line and the associated GSEP and BSPP solar projects.

31

Comment Set B07, cont.
Californians for Renewable Energy

1 Beyond the issue of distributed PV being a superior alternative to GSEP + BSPP + DPV2
2 on cost and environmental grounds, there are lower-impact sites in California for central
3 station solar projects like GSEP and BSPP. The Westlands Water District is a low impact
4 “shovel ready” alternative to the GSEP and BSPP sites for central station solar projects.
5 Westlands requires no new high voltage transmission to move up to 5,000 MW of solar
6 power to California load centers.

7
8 This means solar projects located in Westlands will not face project delays due to lack of
9 high voltage transmission capacity. The steadily declining renewable energy net short to
10 achieve the 33 percent by 2020 target, now as low as 36,926 MW, means fewer renewable
11 projects overall are necessary to meet the 33 percent target. The CPUC should not approve
12 transmission projects like DPV2 serving high-cost solar thermal projects with
13 unmitigatable impacts, when 5,000 MW of otherwise unusable disturbed land with no
14 environmental issues and 5,000 MW of high voltage transmission capacity sits idle.

15

B07-18

Comment Set B07, cont.
Californians for Renewable Energy

**CALIFORNIANS FOR RENEWABLE ENERGY'S INITIAL COMMENTS
ON SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT REPORT
FOR COLORADO RIVER SUBSTATION EXPANSION
(California SCH 2005101104)**

Exhibit 2

Comment Set B07, cont.
Californians for Renewable Energy

**ON BEHALF OF CALIFORNIANS FOR RENEWABLE ENERGY
COMMENTS OF ROBERT M. SARVEY ON DEVERS TO PALO VERDE 2
TRANSMISSION LINE DRAFT SUPPLEMENTAL EIR**

April 8, 2011

Robert M. Sarvey
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Comment Set B07, cont.
Californians for Renewable Energy

B07-19

1 **Alternatives**
2 Section 15126.2(d) of the CEQA Guidelines requires that an EIR discuss the
3 ways in which a proposed project may foster economic or population growth, or
4 the construction of additional housing, either directly or indirectly, in the
5 surrounding environment. The discussion must additionally address how a
6 proposed project may remove obstacles to growth, or encourage and facilitate
7 other activities that could significantly affect the environment, either individually
8 or cumulatively.
9
10 The Proposed Project would facilitate growth indirectly by removing obstacles to
11 population growth through the additional increased capacity of electric power that
12 it would make available. As discussed in Sections A.1.1 (Project Background)
13 and A.1.3 (Project Objectives), the DPV2 Project, including the CRS expansion,
14 would bring energy resources to Los Angeles from Riverside County by providing
15 access to remote areas with the potential for significant development of
16 renewable energy sources.
17
18 CPUC Decision D.09-11.007, which modifies D.07-01-040, concludes that SCE's
19 revised stated objective of constructing the California portion of DPV2, including
20 the Midpoint Substation would be to provide transmission access to potential
21 future renewable resources in the Blythe area and help enable California to meet
22 its renewable energy goals. Additionally, SCE has stated that an additional
23 objective of the CRS would be to complete substation construction in a timely
24 fashion to allow interconnection with the Blythe Solar Power Project (BSPP) and
25 Genesis Solar Energy Project (GSEP) by the Large Generator Interconnection
26 Agreements (LGIA) target dates.
27
28 The CAISO's interconnection queue lists generation facilities that would like
29 access to California's transmission system. There are currently thousands of
30 megawatts of wind and solar facilities in eastern Riverside County listed in the
31 queue, and there is not adequate transmission capacity for these projects to be

Comment Set B07, cont.
Californians for Renewable Energy

1 constructed. While the development of renewable energy sources has the benefit
2 of reducing the use of older and more polluting conventional generation facilities,
3 the renewable facilities could not be constructed without adequate transmission
4 and a substation access point to the grid. So while the CRS may not induce
5 urban growth, it would encourage the development of renewable projects in the
6 Blythe area. The CRS expansion would not be needed without the construction
7 of solar generation in the Blythe area.

B07-19 cont.

8

9 **Biological Resources**

10 Implementation of the CRS expansion would additionally require the permanent
11 loss of approximately 54.1 acres of vegetation and habitat, which equals 61.6
12 percent of the total land (87.8 acres) disturbed for construction. Direct and
13 indirect loss of sand dune habitat within an active sand transport corridor would
14 result in a significant and unmitigable direct impacts to the Mojave fringe toed
15 lizard.¹ There are also cumulative impacts from the project in combination of
16 other projects which the expansion of the CRS enables. These include
17 consideration of the magnitude of threats to MFTL from existing and reasonably
18 foreseeable future projects, the substantial habitat loss and downwind habitat
19 degradation/elimination from the CRS project, which would ultimately result in range
20 contraction of the species, would be cumulatively considerable. New Mitigation Measure
21 B-9j (Provide compensatory mitigation and restoration/enhancement of protected land
22 for impacts to sand dune habitat) would reduce the Proposed Project's contribution to
23 cumulative MFTL habitat loss by securing and preserving unprotected private lands or
24 enhancing/sand dunes already conserved or on BLM land that is not slated for
25 development. Even with the implementation of mitigation, when combined with impacts
26 of past, present, and reasonably foreseeable projects, the Proposed Project's
27 contribution to significant cumulative MFTL impacts remains cumulatively considerable
28 (Class I). Several of these projects are only feasible with the expansion of the CRS and
29 therefore the EIR should discuss the indirect impacts of the CRS expansion.

B07-20

30

B07-21

¹ DEIR Page G-3 http://www.cpuc.ca.gov/Environment/info/aspen/dpv2/sdeir/g_otherceqa.pdf

Comment Set B07, cont. Californians for Renewable Energy

1 While the DEIR has concluded that the contribution of the CRS expansion to impacts to
2 the Desert kit Fox, Swainson hawk, and other sensitive species is not cumulatively
3 considerable the DEIR does not consider that the CRS expansion enables a
4 cumulatively considerable impact from the other projects that are infeasible without the
5 expansion to the CRS. These impacts must be examined in the final EIR.

B07-21 cont.

7 Air Quality

8 From the discussion at the prehearing conference it appears that an accelerated
9 construction schedule is being considered to allow two large solar projects to meet
10 online dates.

B07-22

11
12 *“So NextEra has been attempting to work with SCE and SCE has been also
13 working with NextEra to find ways to accelerate the construction schedule. But in
14 order to do that, it is really important that there be a final decision in this
15 proceeding approving a project, and approving one that is feasible and that can
16 be built on a time frame in order to allow the Genesis project to come online.”²*

17
18 The impacts of an accelerated construction schedule are not reflected in the
19 DEIR. As the DEIR states, “Pollutant emissions would vary from day to day
20 depending on the **level of activity**, the specific operations, and the prevailing weather.³
21 Impacts to air quality could include increased hourly, daily, and annual
22 construction emissions. The Final EIR must quantify and discuss these impacts.
23 The current discussion in the DEIR is incomplete without this additional analysis
24 as an accelerated construction schedule.

25
26 The DEIR already concludes that, “daily emissions from the Proposed Project would
27 cause significant and unavoidable impacts in the SCAQMD (Class I).” Despite this
28 conclusion the DEIR does not require all feasible and cost effective mitigation measures
29 which can reduce the significant impact. Limiting construction vehicle speeds, use of
30 electric powered equipment, and many other mitigation measures should be considered
31 to reduce the identified significant impact. .

B07-23

² Prehearing conference transcript Page 46

³ DEIR Page D.11-37

Comment Set B07, cont.
Californians for Renewable Energy

1
2 The draft DEIR also concludes that Tower construction would have the potential to
3 cause significant localized PM10 emission impacts for sensitive receptors located near
4 the tower sites. The significant impacts, based on the SCAQMD LST lookup table, would
5 extend to sensitive receptors within and just over 50 meters of the tower sites. Fugitive
6 dust mitigation measures are assumed to be implemented in these emission estimates;
7 therefore, the Proposed Project would cause significant and unavoidable (Class I)
8 localized PM10 impacts for nearby sensitive receptors within SCAQMD jurisdiction, and
9 all feasible fugitive dust mitigation measures need to be applied within this jurisdiction.⁴

B07-24

10
11 According to the DEIR the Proposed Project would exceed the federal General
12 Conformity *de minimis* thresholds, **assuming the current project schedule** and activity
13 forecasts. Table D-11.19 shows that the Proposed Project would exceed the SCAB NOx
14 threshold for General Conformity in 2008. NOx offsets are proposed for this significant
15 impact. As mentioned above an accelerated construction schedule is reasonably
16 foreseeable and the impact of increased construction activity must be quantified and
17 mitigated.⁵ The DEIR contains no analysis of the localized PM-10 and NO₂ air quality
18 impacts. With or without an accelerated construction schedule the projects construction
19 activities could lead to localized violations of the Federal 24 hour PM 2.5 standard, the
20 Federal 1-Hour NO₂ standard and other federal and state air quality standards
21 established to protect the health of the nearby sensitive receptors. A complete analysis
22 including compliance with state and federal air quality standards is required and the
23 possible environmental justice considerations must be included in the final EIR.

B07-25

24
25 The alternative route proposal fails to discuss whether sensitive receptors are
26 located near the projects' construction areas so the DEIR fails to inform the
27 decision makers and the public as to possible localized air quality impacts to
28 sensitive receptors for the alternative routes. The Final EIR must include an
29 analysis and discussion of these impacts and their environmental justice
30 implications in order to inform the public and meet the requirements of an EIR
31 under CEQA.

B07-26

⁴ DEIR Page D. 11-45

⁵ DEIR Page D.11-46

Comment Set B07, cont. Californians for Renewable Energy

1
2 The DEIR includes a discussion of a net decrease in emissions from power plants in
3 California and a smaller increase in emissions from power plants in Arizona (described
4 in Impact AQ-3) would not occur with implementation of No Project Alternative (CAISO,
5 2005). That discussion is irrelevant to the impacts of the expanded CRS. First the
6 current proposal is to build only the California portion of the DVP2 so a realized
7 reduction in California power plant emissions and an increase in power plant
8 emissions in Arizona will not occur under the current proposal. Second those
9 emission increase and reductions in power plant emissions are irrelevant on the
10 expansion of the CRS and only serves to confuse the decision maker and the
11 public as to the true impacts of the CRS expansions.

B07-27

12
13 The DEIR states that the first component of the No Project Alternative is the continuation
14 of ongoing demand-side actions, including energy conservation and distributed
15 generation (DG). These actions would result in possible localized air quality impacts as a
16 result of development of DG units by energy consumers. This would be the case if fossil-
17 fuel fired or other combustion or thermal DG technologies become more widespread.
18 The DEIR ignores the potential for rooftop solar and substation located solar arrays
19 which would eliminate the need for additional transmission lines and large scale solar
20 generating facilities in the desert environment and eliminates all of the impacts identified
21 in the DEIR and the significant impacts of these large scale solar projects. The DEIR
22 also fails to consider the enormous amount of energy consumption that could be
23 achieved by shifting ratepayer resources away from the central station solar arrays and
24 large desert renewable projects. .

B07-28

25
26 The DEI then speculates that the second component of the No Project Alternative is the
27 continuation of supply-side actions, resulting in potentially increased generation within
28 California or increased transmission into California to serve anticipated growth in
29 electricity consumption.

30
31 The impacts of new power plants and new transmission lines could add air pollutants
32 contributing to existing nonattainment conditions or violations of ambient air quality
33 standards, if they occur in areas of substantial existing pollution. Although construction

Comment Set B07, cont.
Californians for Renewable Energy

1 and operation of new power plants and transmission lines may occur, their locations and
2 development schedules cannot be predicted. This is unlikely if in fact the regulators do
3 enforce the loading order and fulfill future electrical demand with energy efficiency
4 measure and distributed rooftop and substation solar arrays.

B07-28 cont.

Comment Set B07, cont.
Californians for Renewable Energy

CERTIFICATE OF SERVICE

I, the undersigned, certify that I served the foregoing **CALIFORNIANS FOR RENEWABLE ENERGY'S INITIAL COMMENTS ON SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT REPORT FOR COLORADO RIVER SUBSTATION EXPANSION** on the persons/parties listed, in the manner indicated, on the attached Service List.

Date: April 8, 2011. s/ Cory J. Briggs

Comment Set B07, cont.
Californians for Renewable Energy

Service List for A10-11-005
(Last Update: 7-Apr-2011)

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Responses to Comment Set B07 Californians for Renewable Energy (CARE)

B07-1 The commenter summarizes the No Project Alternative scenario discussion from the Draft SEIR, and states that the SEIR's failure to analyze a non-transmission alternative to the DPV2 transmission line is a substantial omission. The Proposed Project in this SEIR is limited to the expansion of the Colorado River Substation; the project at issue is not the DPV2 transmission line. As described in SEIR Section A.1.1 (Project Background), a joint EIR/EIS for the DPV2 transmission line project was certified in 2007. Both distributed generation and conservation/demand-side management alternatives were considered in that document and eliminated from full evaluation due to infeasibility as well as the failure of the alternatives to meet basic project objectives. See DPV2 Final EIR/EIS, Section C.5.

A California-only portion of DPV2 from Blythe to Devers Substation was approved by the CPUC in Decision D.09-11-007, adopting a Petition for Modification of D.07-01-040, on November 20, 2009. After the CPUC's 2009 decision, two large solar power projects – Blythe Solar Power Project (BSPP) and Genesis Solar Energy Project (GSPP) – requested interconnection to the electricity grid at the substation. As a result, a plan was developed to expand the substation to allow the required space for generation tie lines for these two projects to be interconnected with the transmission system. It is that expansion which is analyzed in the Final SEIR.

CEQA's requirements for consideration of alternatives are defined in CEQA Guidelines Section 15126.6, which mandates that an EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. Under both CEQA and NEPA, lead agencies are required to evaluate a "reasonable range" of alternatives but are not required to evaluate every possible alternative. According to the Council on Environmental Quality (CEQ), "[w]hen there are potentially a very large amount of alternatives, only a reasonable number of examples, covering the full spectrum of alternatives, must be analyzed and compared in the EIS." (CEQ Forty Questions, No. 1b.) Under CEQA, the "range of alternatives required in an EIR is governed by a 'rule of reason' that requires an EIR to set forth only those alternatives necessary to permit a reasoned choice." (CEQA Guidelines § 15126.6(f).)

Six alternatives were selected for detailed analysis in the SEIR. Each alternative, in compliance with the requirements of CEQA, reduced the significant effects of the project while still meeting most of the project's basic objectives. Appropriately, the SEIR focused on alternatives that would reduce impacts of the substation itself.

Furthermore, even if the SEIR were to consider a non-transmission alternative like distributed generation, such an alternative would meet only one basic objective of the project (helping California meet its renewable energy goals). Such an alternative would not meet either of the other two project objectives, which are to provide transmission access to potential future renewable resources in the Blythe area, and to complete the substation in a timely manner to serve other approved solar projects in the Blythe area.

B07-2 The commenter states that rooftop photovoltaic (PV) generation is at the top of the Energy Action Plan Loading Order. While this statement may be correct, it is not relevant to the project's alternatives analysis as the Loading Order does not guide the CPUC's compliance with CEQA and the selection of alternatives to the expansion of the CRS. As noted above, distributed generation was considered and rejected for full evaluation as an alternative to the DPV2 transmission line project based on both infeasibility and failure to meet most of the basic project objectives. It was not considered as an alternative to the substation expansion. As described in detail in Draft SEIR Appendix 1 and SEIR Section C, alternatives are selected based on CEQA's requirements that they meet most project objectives, are feasible, and have the potential to reduce or eliminate the significant impacts of the proposed project. As discussed above, the SEIR analyzed a reasonable range of alternatives, which meet most of the basic project objectives. Because rooftop PV would not meet two of three project objectives (see Response to Comment B07-1), consideration of a rooftop PV alternative is not appropriate. Additionally, the CPUC does not have jurisdiction to approve or disapprove generation projects such as GSEP and BSPP. Those projects have already been evaluated under CEQA and NEPA by the CEC and BLM and are under construction.

B07-3 The commenter, in referencing the GSEP's Revised Staff Assessment (RSA), states that rooftop PV has essentially no environmental impacts and, therefore, that the RSA's elimination of distributed PV as an alternative to the project was flawed. This comment is noted. The GSEP has been approved by the BLM and the California Energy Commission and construction is underway. As discussed previously in this Response to Comments, the project analyzed in the Final SEIR is the CRS expansion, proposed by SCE as a result of the recent approval of two solar power projects (the BSPP and the GSEP) which have requested interconnection to the electricity grid at the CRS location. The environmental impacts of the BSEP and the GSEP, considered to be part of the proposed action to expand the CRS, were previously evaluated under both CEQA and NEPA, and those analyses are incorporated by reference into the Final SEIR. As described in the No Project Alternative scenario (SEIR Section C.6.2), if the CRS expansion is not approved, NextEra (the GSEP developer) would be required to construct its own substation to interconnect to the DPV transmission corridor. This would result in substantial delay in the online date of GSEP, and would increase the extent of that project's environmental impacts.

The impacts of the GSEP are summarized in this Final SEIR because the GSEP will connect to the transmission grid in the expanded substation, so the projects are interconnected. However, the GSEP would still be constructed even if the CRS is not expanded. With regard to consideration of rooftop PV as an alternative to the CRS expansion, please see Responses to Comments B07-1 and B07-2.

B07-4 The commenter references the GSEP RSA and states that distributed PV is being deployed at a much faster rate in California than Central Station Solar Thermal generation. The commenter further states that no incentives beyond those already available would be necessary to build 250 MW of distributed PV under a long-term PPA to substitute for GSEP. This comment is noted. With regard to the relationship of the GSEP to the CRS expansion, please see Response to Comments B07-3. With regard to consideration of rooftop PV as an alternative to the CRS expansion, please see Responses to Comments B07-1 and B07-2.

- B07-5 The commenter documents support by SCE and PG&E for distributed PV projects proposed at the CPUC. The comment does not raise significant environmental issues related to the CRS expansion and therefore no further response is required.
- B07-6 The commenter states that distribution substations could interconnect over 13,000 MW of PV with minimal interconnection cost. The comment is noted. The comment does not raise significant environmental issues related to the CRS expansion and therefore no further response is required.
- B07-7 The commenter states that the cost to upgrade distribution substations and feeders to accommodate distributed PV would be minimal. The comment is noted. The comment does not raise significant environmental issues related to the CRS expansion and therefore no further response is required.
- B07-8 The commenter states that Investor Owned Utilities should share information on substation capacities with PV developers so distributed PV could be integrated appropriately. The comment is noted. The comment does not raise significant environmental issues related to the CRS expansion and therefore no further response is required..
- B07-9 The commenter states that there is sufficient commercial rooftop space is available within the PG&E and SCE territories to build at least 30 projects the size of the GSEP. With regard to the relationship of the GSEP to the CRS expansion, please see Response to Comments B07-3.
- B07-10 The commenter states that the GSEP RSA uses obsolete costs to support elimination of distributed PV as an alternative to GSEP. With regard to the relationship of the GSEP to the CRS expansion, please see Response to Comments B07-3. With regard to consideration of rooftop PV as an alternative to the CRS expansion, please see Responses to Comments B07-1 and B07-2.
- B07-11 The commenter provides data on comparative costs of generation options. The comment is noted. The comment does not raise significant environmental issues related to the CRS expansion and therefore no further response is required.
- B07-12 The commenter states that rooftop PV is more space efficient than the GSEP solar thermal facility, and would have fewer impacts. With regard to the relationship of the GSEP to the CRS expansion, please see Response to Comments B07-3. With regard to consideration of rooftop PV as an alternative to the CRS expansion, please see Responses to Comments B07-1 and B07-2.
- B07-13 The commenter states that adequate PV panel manufacturing capacity is available and therefore that the concerns expressed in the GSEP RSA regarding availability are without foundation. With regard to the relationship of the GSEP to the CRS expansion, please see Response to Comments B07-3. With regard to consideration of rooftop or distributed PV as an alternative to the CRS expansion, please see Responses to Comments B07-1 and B07-2.
- B07-14 The commenter disagrees with the GSEP RSA's elimination of the distributed PV alternative from consideration, stating that the reduced solarly in coastal load centers as compared with the Mojave Desert would be offset by transmission losses on transmission lines from the desert to load centers. The solarly of the desert in comparison with the

coastal areas of California is not relevant to the CRS expansion nor does it raise significant environmental issues related to the CRS expansion. With regard to the relationship of the GSEP to the CRS expansion, please see Response to Comments B07-3. With regard to consideration of rooftop PV as an alternative to the CRS expansion, please see Responses to Comments B07-1 and B07-2.

- B07-15 The commenter states that distributed PV can compete cost-effectively with other forms of generation. It then states that the CEC denied approval of a 100 MW gas-fired turbine power plant in part because rooftop solar PV could potentially have achieved the same project objectives for comparable cost. The comment is noted. The comment does not raise significant environmental issues related to the CRS expansion and therefore no further response is required. With regard to consideration of rooftop or distributed PV as an alternative to the CRS expansion, please see Responses to Comments B07-1 and B07-2.
- B07-16 The commenter states that locating utility scale solar facilities within the Westlands Water District Competitive Renewable Energy Zone (CREZ) would avoid environmental impacts at the GSEP site. The comment is noted, but as it does not raise significant environmental issues related to the CRS expansion, no further response is required. With regard to the relationship of the GSEP to the CRS expansion, please see Response to Comments B07-3. With regard to consideration of rooftop or distributed PV as an alternative to the CRS expansion, please see Responses to Comments B07-1 and B07-2.
- B07-17 The commenter reiterates that the SEIR is inadequate without an analysis of non-transmission alternatives to the DPV2 transmission line. The commenter states that such alternatives were considered in the Sunrise Powerlink EIR/EIS, and should be considered in this case. As described in Response to Comment B07-1, the Proposed Project in this SEIR is limited to the CRS expansion; the project at issue is not the DPV2 transmission line. Furthermore, both distributed generation and conservation/demand-side management alternatives were considered in DPV2 Final EIR/EIS and eliminated from full evaluation due to infeasibility as well as the failure of the alternatives to meet basic project objectives. For further discussion of the relationship of non-transmission alternatives to the CRS expansion, please see Responses to Comments B07-1 and B07-2.
- B07-18 The commenter states that there are lower-impact sites for central station solar projects like GSEP and BSPP, including the Westlands CREZ sites where it states that no new high voltage transmission would be required to move 5,000 MW of solar power to load centers. The comment states that reduced impacts in Westlands would reduce project delays due to lack of transmission capacity, and that the CPUC should not approve projects like DPV2 that serve high-cost solar thermal projects with significant impacts when other generation alternatives are available. As discussed in these Responses to Comments, the project being analyzed in the FSEIR is the CRS expansion, not the DPV2 transmission line. The impacts of the DPV2 transmission line were previously analyzed in the DPV2 Final EIR/EIS, and that document is incorporated by reference into the FSEIR. For further discussion of the relationship between the project and DPV2, please see Responses to Comments B07-1, B07-2, and B07-16.
- B07-19 The commenter summarizes the opening pages of Section G.1 of the Final SEIR. It states that CEQA requires an EIR to discuss the growth-inducing impacts of the project. It then states that the CRS expansion would facilitate population growth through the provision

of electric power, and further, that it would encourage the development of renewable projects in the Blythe area. Finally, it states that the CRS expansion would not be needed without the construction of solar generation in the Blythe area.

While the commenter accurately restates language contained in Section G of the Final SEIR, the comment does not raise any significant environmental issues related to the project. Section G.1 in the Final Supplemental EIR addresses the potential for growth-inducing project effects including economic or population growth or the construction of additional housing, and Section G.1.2 addresses the issue of growth related to the provision of additional electric power.

As discussed in Sections A.1.1 (Project Background) and A.1.3 (Project Objectives) in the Final Supplemental EIR, the DPV2 Project, including the CRS expansion, would bring energy resources to Los Angeles from Riverside County by providing access to remote areas with the potential for significant development of renewable energy sources. Likewise, Section G.1 in the Final Supplemental EIR addresses the potential for growth-inducing project effects, and Section G.1.2 (Growth Related to Provision of Additional Electric Power) in the Final Supplemental EIR states that the proposed CRS would encourage the development of renewable projects in the Blythe area and the CRS expansion would not be needed without the construction of solar generation in the Blythe area.

Because the CRS would provide transmission access to potential future renewable resources in the Blythe area (BSPP and GSEP), the CPUC must evaluate the interconnections of each of these projects as the “whole of the action” under CEQA (CEQA Guidelines § 15378[a]). The CPUC has determined that any projects with approved Power Purchase Agreements (PPA) that require interconnection to the Colorado River Substation should be analyzed as part of the “whole of the action” in this SEIR. The CPUC’s PPA database was used to define these projects. Because neither the CRS nor the solar facilities could exist without the other, the BSPP and GSEP are considered to be a “connected action” to the proposed CRS. Therefore, the impacts of the solar facilities should be considered by the CPUC in its determination of whether to approve the CRS.

For the disciplines that are fully analyzed in Sections D.2 through D.6 (Biological Resources, Cultural Resources, Hydrology and Water Resources, and Greenhouse Gas Emission), the connected action summaries for both of the projects are presented as a sub-section within the Proposed Project analysis. For the other environmental disciplines not analyzed in this SEIR for the substation expansion, the connected action summaries for BSPP and GSEP are presented in Section D.7 of the Final Supplemental EIR. As a result, the Final Supplemental EIR analyzes all direct and indirect impacts from the whole of the project as well as its potential for growth inducement.

- B07-20 The habitat loss and range contraction as well as the severity of direct and cumulative impacts noted by the commenter is consistent with the MFTL impact analysis presented in Sections D.2 and E.3.1 of the Draft SEIR. Please also see Response to Comment B04-2.
- B07-21 The commenter states that the SEIR should address indirect impacts of CRS expansion, including cumulatively considerable impacts from the other projects that are infeasible without the expansion of CRS. Please refer to Response to Comment B07-19 for a discussion of “connected actions” to the proposed CRS expansion, as well as Responses to

Comment B06-2 and B06-17 regarding the adequacy of the cumulative analysis with respect to the “connected actions.”

B07-22

The commenter states that the impacts of an accelerated construction schedule for the BSPP and GSEP are not reflected in the Final SEIR and that these impacts must be quantified and discussed. Construction schedules are almost always highly variable and subject to unpredictable delays. The Final Supplemental EIR discloses the reasonably foreseeable emissions and air quality impacts related to the two connected actions (Section D.7.1) under the assumption that they occur simultaneously. At this time, there is no indication that either of the two solar projects would be likely to file any petition with the California Energy Commission to substantially modify or accelerate the construction schedule, and therefore any analysis of an accelerated construction scenario would be speculative. However, an accelerated construction schedule alone would not be likely to lead to any foreseeable increase in air pollutant emissions or impacts. In any event should a major change in construction be proposed (such as an accelerated schedule), the CEC would be required to prepare additional environmental documentation to analyze any resultant change in impacts.

B07-23

The commenter states that the “DEIR” does not require all feasible and cost effective mitigation measures to reduce air quality impacts to the South Coast Air Quality Management District (SCAQMD). The commenter appears to be referring to the DEIR for the DPV2 Transmission Line Project, rather than the DSEIR for the proposed CRS expansion. While all feasible mitigation relevant to the air quality impacts of the CRS are identified in the DPV2 Final EIR/EIS and would become requirements for the CRS if approved, the DPV2 EIR was certified in 2007 and therefore is not the subject of these Responses to Comments. As discussed in these Responses to Comments, the project analyzed in the FSEIR is the CRS expansion, not the DPV2 transmission line. The impacts of the DPV2 transmission line were previously analyzed in the DPV2 Final EIR/EIS, and that document is incorporated by reference into the FSEIR. For further discussion of the relationship between the project and DPV2, please see Responses to Comments B07-1, B07-2, and B07-16.

The primary purpose of a supplemental EIR is to ensure that new impacts or substantial changes in impacts that have been identified as a result of project modification are fully disclosed and analyzed. CEQA Guidelines § 15163(a). In instances where only minor additions or changes would be necessary in the previous EIR to make that EIR apply to the changed situation, a supplemental EIR may be used and need contain only the information necessary to make the previous EIR adequate for the project as revised. CEQA Guidelines § 15163(a)(2), (b). The project modification in this case is the expansion of the substation. Therefore, the only impacts analyzed in the FSEIR, are those which are either new or substantially changed as a result of the CRS expansion. Impacts to air quality from the CRS expansion were determined to remain less than significant, and no new impacts would be created. For this reason, no further analysis of air quality is required in the SEIR. In any event, the commenter has provided no substantial evidence showing that the CRS expansion will result in new or substantially changed impacts to air quality, and therefore no further response is required.

It should also be noted that the proposed CRS would be located in the Mojave Desert Air Quality Management District (MDAQMD) and the Mojave Desert Air Basin, as in Figure

D.11-1 and Figure D.11-2 in the DPV2 Final EIR/EIS (2006); therefore, it would not contribute to the impacts to the SCAQMD identified by the commenter.

B07-24 The commenter identifies a concern regarding air quality impacts in the DEIR, again appearing to refer to the DEIR for the DPV2 Project. Please refer to Response to Comment B07-23 for an explanation of why the air quality analysis in the DPV2 EIR is not the subject of these Responses to Comments and why a supplemental EIR is the appropriate environmental document for analysis of the CRS expansion. Please also refer to Response to Comment B07-23 for an explanation of why the CRS expansion would not result in an adverse effect to receptors in the SCAQMD jurisdiction. The commenter has provided no substantial evidence showing that the CRS expansion will result in new or substantially changed impacts to air quality, and therefore no further response is required.

B07-25 The commenter again refers to the DEIR for the DPV2 Project, stating that a complete air quality analysis, including compliance with state and federal air quality standards, is required. The commenter also identifies a concern with the Federal 1-hour standard for nitrogen dioxide (NO₂), but this standard is based on a multi-year analysis of concentrations, which makes construction-related violations of this standard extremely unlikely. The applicable PM_{2.5} or NO₂ ambient air quality standards are shown in Table D.7-6 and Table D.7-9 of this Final Supplemental EIR, and the project would not cause any potential violations.

Please refer to Response to Comment B07-23 for an explanation of why the air quality analysis in the DPV2 EIR is not the subject of these Responses to Comments and why a supplemental EIR is the appropriate environmental document for analysis of the CRS expansion. The commenter has provided no substantial evidence showing that the CRS expansion will result in new or substantially changed impacts to air quality, and therefore no further response is required.

B07-26 The commenter expresses concern about the construction of alternative routes potentially leading to localized air quality impacts to sensitive land uses. Again, it appears that the commenter may be referring to the alternatives analysis for the DPV2 project, as alternative routes are not included in the Final SEIR's alternatives analysis for the CRS expansion. No residential land uses, or land use otherwise considered sensitive would be near any of the substation site alternatives (see Section F.4.1) or the transmission interconnections. Section A.2.2 of the Final Supplemental EIR states that there are no nearby residences that would be impacted by the substation expansion project. Furthermore, the descriptions of the alternative sites in Section C and Figure C-1 illustrate that the five alternatives would be in close geographic proximity to the proposed CRS, and thus, would not affect sensitive land uses.

B07-27 The commenter points to information from the DPV2 Final EIR/EIS (2006) regarding indirect effects, specifically power plant emissions, described in the environmental analysis of the DPV2 Project, approved in 2007. The commenter states that analysis of these effects is confusing and irrelevant to expansion of the CRS. However, the CPUC authorized SCE to construct DPV2 facilities in only California in 2009, which generally eliminated the direct and indirect air quality effects of the project in Arizona. Further, the Final SEIR at issue in these Responses to Comments analyzes the CRS expansion. See Section D.1.1 of this Final Supplemental EIR for additional information on the project components analyzed.

B07-28 The commenter points to information from the DPV2 Final EIR/EIS (2006) regarding effects of the No Project Alternative. When the CPUC approved the DPV2 Project in 2007, that action rejected the No Project Alternative to DPV2. Comments on the potential impacts of distributed generation, or increasing the supply of new generation, and the potential advantages of rooftop solar arrays are noted. With regard to consideration of rooftop PV as an alternative to the CRS expansion, please see Responses to Comments B07-1 and B07-2. Issues related to electricity generation alternatives are not within the scope of the substation site alternatives analysis, because while the Proposed Project would accommodate interconnection of generation, it would not otherwise lead to any change in electricity supply or demand (Section F.4.1 of the Final Supplemental EIR).

D01-34 The commenter suggests that Mitigation Measure H-7c (Water Supply Plan for Use of Colorado River Water) should be revised per the suggested revisions to Mitigation Measure H-7a (Groundwater Well Contingency Plan). As described in Response to Comment D01-32, Mitigation Measure H-7a requires a Groundwater Well Contingency Plan to be implemented to avoid potential impacts associated with the primary well being or becoming insufficient to meet project water requirements; this mitigation measure does not address compensatory actions associated with the pumping of appropriated Colorado River water, as required per Mitigation Measure H-7c.

The commenter also states that pumping rates at the SCE supply well(s) would be reduced and/or compensation made to the “Colorado River Basin authorities” if monitoring of the project supply well(s) indicates that pumping occurs below the accounting level surface of Colorado River water. In response to this comment, Mitigation Measure H-7c is required to ensure that such actions occur, and that potential impacts to Colorado River flow would be less than significant. Mitigation Measure H-7c provides the Applicant (SCE) with several options in responding to project impacts on flows in the Colorado River, if it is determined through implementation of Mitigation Measure H-7b that such impacts could occur. This mitigation measure also allows the Applicant to use U.S. Bureau of Reclamation allocations of water from the Colorado River as offsets, if needed.

In accordance with Mitigation Measure H-7c, if implementation of one or more of the following actions would not fully offset the quantity of Colorado River water that would be used by the project, then a Water Supply Plan would be required: (1) payment for irrigation improvements; (2) purchasing of water allotments; (3) use of tertiary treated water; (4) implementation of water conservation programs; (5) participation in a Tamarisk Removal Program; and/or (6) use of USBR Colorado River water allocations (if available). Mitigation Measure H-7c specifies the information required for inclusion in the Water Supply Plan, if it is determined that implementation of one or more of the aforementioned actions would not fully offset the Proposed Project’s use of Colorado River water.

The commenter notes that operational water use would be “minimal” and that once construction is complete, there would be no potential for the Proposed Project to result in consumption of Colorado River water via pumping groundwater from below the accounting surface of the river. In response to this comment, it is not possible to determine whether the project could result in pumping Colorado River water without conducting the groundwater monitoring and reporting activities described in Mitigation Measure H-7b. If it is determined through implementation of Mitigation Measure H-7b that the project would not affect the flow of Colorado River water, then Mitigation Measure H-7c would not be required. As described in Response to Comment D01-33, Mitigation Measure H-7b would be implemented for at least the first five years of the Proposed Project, starting at the onset of the construction period. During this time, if the groundwater monitoring and reporting actions required per Mitigation Measure H-7b determine that flow of the Colorado River could be affected by the Proposed Project, then Mitigation Measure H-7c would be implemented. Mitigation Measure H-7c has not been “simplified” or restricted to the construction period, as suggested by the commenter. As worded in the Draft Supplemental EIR, Mitigation Measure H-7c is both warranted and reasonable.

D01-35 Exhibit 2, which depicts the Southern Alternative and the right-of-way corridor for the transmission loop-in towers, has been incorporated into Appendix 1 of the Final Supplemental EIR to update and replace the original Figure Ap.1-7.