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Desert State Park will be based upon the goal of preserving, instilling an appreciation for, and making available these treasured qualities and experiences for present and future generations.

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Moreover, even the California Energy Commission has designated ABDSP a “no touch zone” that should be avoided by transmission lines.¹⁹

In short, any and all impacts to state wilderness, and to state parks, from the proposed project or any alternatives must be considered significant and unmitigable. This *includes* the Overhead 500 kV ABDSP Within Existing ROW alternative because it too will infringe directly on both the park and wilderness via a) construction and permanent structures where there appears to be no existing legal right-of-way, b) pull sites and temporary and permanent roads located outside of any ROW, c) motor vehicles, d) helicopters, and e) visual scarring from the nearby presence of towers and conductors. This would be inconsistent with Public Resources Code section 5093.36(b) and the Anza-Borrego General Plan.

Finally, not only would reclassification of wilderness areas be contrary to state policy and law, it could require lengthy proceedings beyond the CPCN process. This is because the proposed project would require an amendment to the Anza-Borrego General Plan and a re-designation of State Wilderness by the California State Park and Recreation Commission. State Parks would also need to consider additional intrusions, such as those identified above, that would impinge upon wilderness and other ecologically and culturally significant areas. However, the State Parks Department is not an agency dedicated to multiple uses of the land, and therefore would be required to assess the STP in accordance with its own laws, policies and General Plans that mandate preservation of the Park’s resources. In other words, any proceeding regarding the STP would have to thoroughly examine the Project through the lens of the Parks Department’s mission and purposes. For instance, the California Code mandates that

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each state agency with jurisdiction over any area designated as a wilderness area shall be responsible for preserving the wilderness character of the wilderness area and shall so administer such area for such other purposes for which it may have been established as also to preserve its wilderness character. Except as otherwise provided in this chapter, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.²⁰

This means that the State Parks Department is vested with the authority and responsibility to preserve the wilderness character of state wilderness within Anza-Borrego. The addition of a 500 kilovolt transmission line and its operation and maintenance, of course, would do just the

¹⁹ California Energy Commission July 2, 2007, comments. See Attachment 9.

²⁰ Cal. Pub. Resources Code § 5093.36 (2007). *See also* Cal. Pub. Resources Code § 5093.33 (2007) (“wilderness area shall continue to be subject to the jurisdiction of the state agency or agencies having jurisdiction thereover immediately prior to its inclusion in the system. The secretary shall adopt guidelines for the management of wilderness areas. Each state agency or agencies having jurisdiction over a wilderness area shall adopt regulations for the management of such areas consistent with the guidelines adopted by the secretary and the objectives of this chapter. Such regulations shall include provisions to protect endangered or rare native plant and animal species.”)

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opposite. Therefore, any proceeding before the State Parks Department regarding the STP would take considerable time and would likely (as it should) result in the prohibition of any part of the STP on state park or wilderness land.

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Finally, the DEIR/EIS acknowledges that “the statutory or recorded easement through the majority of [Anza-Borrego] is 100 feet, but may be narrower or even non-existent in several areas...” B-9.²¹ Nonetheless, the DEIR/EIS, for the purposes of its analysis, assumes that SDG&E’s ROW in Anza-Borrego is 100 feet throughout. We note here that SDG&E has not yet established that it has a 100 foot easement throughout Anza-Borrego. Instead, SDG&E’s easement is likely less than 100 feet in certain areas, and non-existent in other areas. This is important because one of the Anza-Borrego alternatives, the Overhead 500 kV ABDSP Within Existing ROW alternative, would not achieve what SDG&E believes it would achieve, avoidance of inconsistency with the Anza Borrego General Plan. Instead, because a) SDG&E has not established a ROW throughout the entirety of Anza-Borrego, b) has not established that such a ROW would be 100-feet, and c) has not established that the change in scope and use (from a wooden monopole to a 500 kv H-frame) of the ROW would be allowed, impacts to Anza-Borrego, both the park and its wilderness, would be much more significant than the description of the Overhead 500 kV ABDSP Within Existing ROW alternative suggests. The final EIR/EIS should make clear that impacts to the park and wilderness may be more severe because SDG&E has not established a ROW, let alone a 100-foot ROW, throughout Anza-Borrego. Similarly, the final EIR/EIS should make clear that there may be additional inconsistencies with the Anza-Borrego General Plan due to the failure thus far of SDG&E to establish a ROW throughout Anza-Borrego.

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Fire and Fuels Management

In addition to the comments of Richard Halsey made on our behalf (Attachment 7), we submit the following additional comments regarding Fire.

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Page D.15-84 & 15-87 The text of mitigation measure F-1d is not entirely clear but appears to require that all “brush” and dead and decaying vegetation shall be removed from the entire STP right-of-way and construction work areas. Please clarify whether this is a correct interpretation of this mitigation measure and whether this would be considered a permanent impact. If this is a correct interpretation, please explain whether the level of vegetation removal contemplated here is reflected in Table D.2-7.

Assuming this is an accurate interpretation, this mitigation measure would result in an extraordinary level of habitat destruction that does not appear to be considered for the purposes of calculating impacts or mitigation to habitat, species, water quality, visual resources, and many other issues elsewhere in the DEIR/EIS. Removal of all “brush” in the right-of-way, presumably at least including all coastal sage scrub and chaparral vegetation, would not only be extremely

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²¹ Not only may the ROW be narrower or even non-existent in several areas, SDG&E’s assertion that it has “prescriptive easements” is incorrect. A title obtained by prescription is a legal title, not just a mere assertion of rights, and is available as the basis of an action to quiet title. As of yet, SDG&E has failed to obtain such title, and until they do so, they have no prescriptive easement over State Park land.

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harmful to these resources and dependent species, this measure would also be counterproductive for the purposes of reducing the risk of fire.

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This mitigation, as well as that at F.3a (page D.15-87 “Construct and maintain fuel breaks”) would essentially create enormous harmful and counterproductive fuel breaks in many segments of the STP “within ¼ miles of the transmission centerline...” harming resources and providing a super highway for invasions by highly flammable weeds.

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Fuel breaks are typically ineffective when it comes to controlling wildfire under conditions when control is most essential. According to Keeley et al. (2004)²²: “Under extreme weather conditions, there is overwhelming evidence that young fuels, or even fuel breaks...will not act as a barrier to fire spread.” The creation of fire lines and fuel breaks through mechanical thinning (a.k.a. mastication) as would likely be required over so great an area encourages invasion by exotic weeds through soil disturbance and the introduction and spread of seed.²³ Merriam et al. (2006)²⁴ found that exotic plants made up as much as 70% of plant cover in twenty four fuel breaks distributed throughout California. According to Keeley²⁵ (2006b, citing Keeley 2001, Keeley 2004), “The fact that fuel breaks typically form long corridors makes them ideal mechanisms for transporting non-native species into remote wildlands. ...following fires these fuel breaks represent a major source area for alien invasion of adjacent wildlands” when they provide linear connections between disturbed areas and when reduced fuels in the breaks burn at lower temperatures providing “safe sites for alien propagules during wildfires [and] ensuring survivorship of seed banks.” Exotic weeds in turn are highly flammable and likely to increase the likelihood of wildfire. According to Keeley (2006a)²⁶: “...[A]lien grasses increase the probability of burning...” The conversion of native shrublands to exotic grasslands harms

²² Keeley, J.E., C.J. Fotheringham, and M.A. Moritz. 2004. Lessons from the 2003 wildfires in southern California. *Journal of Forestry* 102(7):26-31.

²³ Backer, D. M., S. F. Jensen, and G. R. McPherson. 2004. Impacts of fire suppression activities on natural communities. *Conservation Biology* 18:937-946, Harrod, R. J., and S. Reichard. 2002. Fire and invasive species within the temperate and boreal coniferous forests of western North America. Pages 95-101 in K. E. M. Galley and T. P. Wilson, editors. Proceedings of the invasive species workshop: the role of fire in the control and spread of invasive species. Miscellaneous publication 11. Tall Timbers Research Station, Tallahassee, Florida; Keeley, J.E. 2006a. Fire management impacts on invasive plant species in the western United States. *Conservation Biology* 20:375-384.

²⁴ Merriam, K. E., J. E. Keeley, and J. L. Beyers. 2006. Fuel breaks affect nonnative species abundance in California plant communities. *Ecological Applications* 16:515-527.

²⁵ Keeley, J.E. 2006b. South coast bioregion, pp. 350-390. In N.G. Sugihari, J.W. van Wagtendonk, K.E. Shaffer, J. Fites-Kaufman, and A.E. Thoede (eds), *Fire in California's Ecosystems*. University of California Press.; Keeley, J.E. 2004. Invasive plants and fire management in California Mediterranean-climate ecosystems. No pagination in M. Arianoutsou and V. P. Panastasis, editors. *Ecology, conservation and management of mediterranean climate ecosystems*. Millpress. Rotterdam, Netherlands; Keeley, J.E. 2001. Fire and invasive species in Mediterranean climate ecosystems of California. Pages 81-94 in K.E.M. Galley and T.P. Wilson, editors. Proceedings of the invasive species workshop: the role of fire in the control and spread of invasive species. Miscellaneous Publication No. 11. Tall Timbers Research Station, Tallahassee, FL.

²⁶ Keeley, J.E. 2006a. Fire management impacts on invasive plant species in the western United States. *Conservation Biology* 20:375-384.

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biodiversity and increases erosion, landslides, and other harmful landform changes.²⁷ The only way to limit the invasion and establishment of exotics in regularly cleared / maintained fuel breaks would be through the regular application of massive and harmful quantities of herbicides, and even this measure is not likely to be totally effective. The resulting harm of this type of clearing and maintenance to people, wildlife, water quality, and many other values would be virtually incalculable. Please consider replacing this mitigation measure with grants to local fire agencies to increase staffing and improve equipment.

B0041-41 cont.

Grants for the creation of defensible space for vulnerable residences are not likely to be effective and may be counterproductive by continuing to a trend of diverting attention from other important elements to improve the fire resistance of at-risk homes – construction features and design of the home itself vs. modification of surrounding vegetation. California law already requires a minimum of 100 feet of vegetation modification around residences in high fire risk areas. Based on this, and based on the need to improve public education about the importance of treating structures vs. only surrounding vegetation, please modify this mitigation measure to increase the amount of funding per home to provide meaningful support for fire resistant modifications to existing homes such as fire resistant roofing, fire shutters, double pane windows, eave boxing, removal of attic vents and/or installation of alternatives, water sprinklers and generator supported water systems, removal or replacement of wood fencing and decks with alternatives, and much more.

Policy Consistency/Plan Amendments

In regard to the Anza- Borrego General Plan, we support some of the DEIR/EIS's findings regarding inconsistency of the STP (and its Anza- Borrego alternatives) with the General Plan. For instance, Biota Guideline 1a of the Anza- Borrego General Plan requires that park staff "preserve sensitive species and habitats and encourage their recovery." Bighorn sheep critical habitat was established in order to promote not only the survival, but the recovery of the species. The significant harm to the sheep's critical habitat from STP (and its Anza- Borrego alternatives) would inhibit that recovery. The DEIR/EIS therefore correctly stated that impacts to bighorn sheep critical habitat would be inconsistent with Guideline 1a. We also agree with the DEIR/EIS that STP (and its Anza- Borrego alternatives) would be inconsistent with Biota Guideline 1b due to the conflicts with the Guideline's directive for proactive efforts for protection and recovery of rare native species.

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The DEIR/EIS, however, also found that STP (and its Anza- Borrego alternatives) would be consistent with Biota Goal 1, which requires park staff to protect the native biota of Anza- Borrego. We feel that the harmful impacts to native plants and animals from the Project and its alternatives, such as the impacts to bighorn sheep, as well as the inconsistency with many of Biota Guidelines, demonstrates a clear inconsistency with Biota Goal 1. We likewise disagree that STP (and its Anza- Borrego alternatives) would be consistent with Biota Guideline 1c which requires park staff to ensure that the conservation of native biota is incorporated into all future developments, management plans, and visitor-use patterns throughout ABDSP, and that the

²⁷ Keeley, J.E. 2006a. Fire management impacts on invasive plant species in the western United States. *Conservation Biology* 20:375-384.

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protection of sensitive species and habitats receives the highest priority. The harmful impacts to sensitive species such as bighorn sheep from STP (and its Anza- Borrego alternatives) are directly contrary to the mandate to give such species highest priority. Similarly, Biota Guideline 1d requires that management strategies will be developed to counteract declines or loss of native biota if those declines are the result of human actions and appear to indicate a compromised native species or ecological system. Again, STP (and its Anza- Borrego alternatives) would be directly contrary to that because they would promote loss of native biota. Therefore, the Draft EIR/EIS should have found an inconsistency with Biota Guideline 1d. Finally, Biota Guideline 1e demands that Desert and Montane Riparian, Palm Tree Oases, Mesquite Bosques, Cienegas, Montane Vernal Pools and Meadows, Desert Ephemeral Playas, small Springs and Seeps, Sand Dunes, and significant wildflower areas be managed for their biological significance and protected as critical resources that support the extraordinary biological diversity of California. Again, STP (and its Anza- Borrego alternatives) are directly contrary to that – the presence of a transmission line of the size and scope of the proposed Project, along with eight new miles of access roads, would inhibit such management and protection.

B0041-42 cont.

The Anza-Borrego General Plan also has goals and guidelines that address invasive species. We believe that due to the high likelihood of the introduction of invasive species due to STP (and its Anza- Borrego alternatives), there would be an inconsistency with Ex. Biota Goal 1, which mandates the reduction of the presence and further invasion of exotic species in the Park.

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We also note that Biological Processes Goal 1 asks park staff to protect the natural processes associated with the Park and to allow those processes to function in a manner that supports the region's native biodiversity. STP (and its Anza- Borrego alternatives) are directly contrary to such a goal because, for instance, they could severely impact Peninsular bighorn sheep. Biological Processes Guideline 1a underscores that point by seeking the perpetuation and enhancement of natural processes and requiring that they be incorporated into future developments, management plans, and visitor use patterns throughout ABDSP. We believe STP (and its Anza- Borrego alternatives) are not consistent with this Guideline. STP (and its Anza- Borrego alternatives) by their very nature, will not enhance the natural processes of the Park. Likewise, Biological Processes Guideline 1b seeks adequate space and time for organisms to respond in an adaptive manner to changes in habitat, climate, the human element, and other environmental variables. The STP (and its Anza- Borrego alternatives) would inhibit that by limiting space for species such as the bighorn sheep.

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We are aware that the DEIR/EIS believes that APMs and mitigation measures can overcome some of the inconsistencies we addressed above. We do not agree with that assessment because we not believe that those measures can undo the significant damage that would be done from STP to the native flora and fauna of Anza- Borrego. Moreover, as discussed above, STP and its Anza- Borrego alternatives are inherently contrary to the Anza- Borrego General Plan's Goals and Guidelines, and consequently, no amount of mitigation or other measures will solve the problem.

In addition to the Anza- Borrego General Plan comments above, we submit the following:

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Pages D.16-8 D.16-36 In the event that the STP is approved in a manner that remains inconsistent with other federal plans, STP mitigation should include amendments to relevant plans to offset impacts resulting from the inconsistencies. For example, any amendments to the BLM's California Desert Conservation Area plan that reduce the extent of Class III visual resource management areas to accommodate the STP should include amendments that increase Class III areas by an equivalent amount elsewhere in the CDCA plan.

B0041-45 cont.

Page D.16-12 & others – In some circumstances, conclusions with regard to the consistency of the STP with state or federal plans do not appear consistent with other conclusions in the DEIR/EIS. For example, on page D.2-111 the DEIR/EIS concludes that impacts to flat-tailed horned lizard habitat “are significant and not mitigable to less than significant levels (Class I) because adequate mitigation land may not be available to compensate for the impacts.” In contrast, the DEIR/EIS concludes on page D.16-12 that the STP would be consistent with the Flat-Tailed Horned Lizard Rangelwide Management Strategy because habitat compensation will be provided. Conclusions in section D.16 should be carefully reviewed and the STP should be found inconsistent with any state or federal plan when relevant impacts would result in any Class I impacts.

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Page D.16-95 – The STP would be patently inconsistent with the City of San Diego MSCP Subarea Plan contrary to statements in the DEIR/EIS. For example, according to the subarea plan “All proposed utility lines ... should be designed to avoid or minimize intrusion into the MHPA. These facilities should be routed through developed or developing areas rather than the MHPA, where possible. If no other routing is feasible, then the lines should follow previously existing roads, easements, rights of way, and disturbed areas, minimizing habitat fragmentation.” The DEIR/EIS’ consistency determination responds to the second portion of this MSCP requirement, but not at all to avoid the MHPA in the first place – at no point does the DEIR/EIS explain why the location of the STP outside of the Los Penasquitos Canyon or Del Mar Mesa preserves for the purpose of avoiding impacts to the MHPA is not possible. The MSCP also requires that “...utilities and facilities within or crossing the MHPA shall be planned, designed, located, and constructed go minimize environmental impacts.” The STP is clearly inconsistent with this requirement as adequate surveys for several plants and animals as well as in some areas where there will be STP impacts outside of the right-of-way have not been conducted and so impacts have not been determined and so certainly can't be avoided or minimized.

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Growth Inducing Impacts

The DEIR/EIS states that “the Proposed Project would facilitate growth indirectly by removing obstacles to population growth through the additional increased capacity of electric power that it would make available.” F-35. However, the DEIR/EIS gives little more information and does not provide any analysis of the impact of increased capacity and additional substations in areas where sprawl development is already taking a heavy toll on the natural environment. Instead, the DEIR/EIS simply concludes that growth is expected to occur with or without implementation of the proposed project. CEQA requires more. In fact, SDG&E's own testimony, both prepared and during cross examination of witness Kemp during Phase 1 of the hearing demonstrates that at least according to SDG&E, the STP will stimulate growth, sprawl, and the attendant increased

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traffic, construction, and emissions. No analysis in the DEIR/EIS discusses this sprawl and whether it is consistent with state GHG emission goals and the Imperial County General Plan.

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Global Warming.

The project will result in foreseeable and quantifiable emissions of carbon dioxide and other greenhouse gases during both construction and the lifetime of the project. These emissions, although small in comparison to worldwide greenhouse gas emissions, will contribute directly and cumulatively to the increase in atmospheric greenhouse gases, and will thus contribute directly, indirectly, and cumulatively to global warming. Under CEQA, it is irrelevant that the emissions associated with the project are small in comparison to total emissions. On the contrary, CEQA's cumulative impact analysis requirement exists to capture precisely this type of impact that may be individually small but cumulatively significant. Kings County Farm Bureau v. City of Hanford (1990) 221 Cal. App. 3d 692, 721. ("The EIR improperly focused upon the individual project's relative effects and omitted facts relevant to an analysis of the collective effect this and other sources will have upon air quality."). We agree with the conclusion in the DEIR/EIS that the proposed STP would have a significant and unmitigable impact. We also agree that any increase in GHG emissions above zero is a significant impact at a time when State law and policy requires substantial GHG emission reductions. We refer you to *The California Environmental Quality Act: On the Front Lines of California's Fight Against Global Warming*, Sept. 2007, from the Center for Biological Diversity.²⁸ The STP would violate AB 32 by locking in an overall increase in greenhouse gas (GHG) emissions, particularly when feasible alternatives exist that will lead to GHG reductions.

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Assembly Bill 32 (AB 32) is the California Global Warming Solutions Act of 2006. The Act requires that greenhouse emissions in California must be reduced to 1990 levels by 2020.²⁹ The Governor, through Executive Order, has required reducing those levels another 80% by 2050.³⁰ It is difficult to overstate the importance of AB 32 and the Governor's actions. The legislature, in passing AB 32, declared:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.³¹

²⁸ The report is at the CBD website and included as attachment 10 to these comments.

²⁹ Cal. Health & Saf. Code § 38550 (2007).

³⁰ Executive Order S-3-05, Governor of the State of California, June 1, 2005;
<http://gov.ca.gov/index.php?executive-order/1861/>

³¹ Cal. Health & Saf. Code § 38501(a) (2007).

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The dramatic reductions in greenhouse gas emissions and the ambitious schedule necessary to meet the requirements of AB 32 and the Governor's Executive Order requires that energy projects must be carefully scrutinized. This is particularly critical in the case of the STP, a massive infrastructure investment that SDG&E witness William Kemp testified will impact the state for the next 50 – 100 years.³² The evidence in both the DEIR/EIS and Phase 1 of the STP proceeding demonstrates that rather than reduce greenhouse gas emissions, approving the STP will cause massive GHG emissions from its construction that exceed any savings that may occur over time, and will increase coal production and the atmospheric release of carbon dioxide, the most pervasive of greenhouse gases.³³

UCAN expert David Marcus used SDG&E's own modeling to demonstrate that fossil fuel alternatives to the STP would produce 8000 Gwh less coal generation in 2020 than the STP alternative. Mr. Marcus compares this amount to operating a 1000 Mw coal plant.³⁴ If a renewable energy only alternative or no action alternative is selected, the savings would of course be greater.

DRA highlights in its prepared testimony that SDG&E provides no analysis of greenhouse gas emissions in its PEA or elsewhere in its Application. SDG&E does not contest this assertion, instead referring to California's "recent" commitment to reducing greenhouse gases.³⁵ SDG&E witness Strack states in his prepared Phase 1 testimony that by "adding the Sunrise Powerlink...some coal-fired generation...can be ramped up."³⁶ Mr. Strack elaborates on this theme further in his testimony during cross-examination by the DRA, agreeing not only that the STP alternative results in more coal production than other alternatives, but that approving the STP will, over time, result in more coal production throughout the West.³⁷ Mr. Strack explained that "when you – add Sunrise Powerlink, you allow more lower cost generation from the Desert Southwest principally to reach the California load center...by adding a line, you're allowing that coal to run a little bit more than it otherwise would."³⁸

Actions that cause an *increase* in coal production are inconsistent with the requirements of AB 32 and the mandate of *reducing* emissions to 1990 levels by 2020. Locking in an infrastructure

³² SDG&E June 15, 2007 Rebuttal Testimony Volume 1 of 2 – Public, Updated on 7/6/07, William Kemp, Exhibit SD- 15, page 5.

³³ "CO₂ is the most pervasive of the GHGs, [greenhouse gases] and the most widely reported and verified of the GHGs at this time." CPUC *Interim Opinion on Phase 1 Issues: Greenhouse Gas Emissions Performance Standard*, D.07-01-039, January 25, 2007, page 227, finding of fact 10.

³⁴ UCAN Testimony of David Marcus (Redacted), Exhibit U- 04, page 211.

³⁵ SDG&E June 15, 2007 Rebuttal Testimony Volume 2 of 2 – Public, Updated on 7/6/07, Jan Strack, Exhibit SD- 16, page 7.

³⁶ SDG&E June 15, 2007 Rebuttal Testimony Volume 2 of 2 – Public, Updated on 7/6/07, Jan Strack, Exhibit SD- 16, page 29.

³⁷ Testimony of SDG&E witness, Jan Strack, Tr. pages 1368-1372.

³⁸ Testimony of SDG&E witness, Jan Strack, Tr. page 1371.

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that encourages additional coal production for the next 50-100 years moves the State even further from meeting the goal of reducing emissions 80% below 1990 levels by 2050 and of providing a leadership role in taking measures to reduce GHG emissions throughout the West. It also must be noted that the spirit of all of the State's GIIG initiatives recognizes the trans-boundary impacts of global warming – California is seeking to reduce emissions of GHG pollutants throughout the West, and not merely take actions to lower its own emissions while simultaneously increasing emissions elsewhere.

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The STP, if approved, would likely lead to violations of AB 32 similar to two enforcement actions previously brought by the Attorney General's office. The basis of each action emphasizes the same concerns raised by the CFC. A petition was filed by the State of California, through the Attorney General's office, on April 13, 2007, alleging the County of San Bernadino has, despite the enactment of AB 32, failed to:

...disclose the effects of the General Plan update on emissions of greenhouse gases, makes no attempt to quantify or even to estimate the current levels of greenhouse gas emissions in the County, makes no attempt to quantify or even to estimate the increases in greenhouse gas emissions that the full execution of the General Plan will cause, makes no attempt to analyze the effects of those increases on global warming or the greenhouse gas emissions reductions required by AB 32, and neither adopts all feasible mitigation measures...nor makes findings supported by substantial evidence in the record that such mitigation measures are infeasible, all in violation of CEQA.³⁹

The State and County settled the matter on August 21, 2007, agreeing on a series of specific measures the County must take to reach compliance with AB 32 and CEQA.⁴⁰

Critical information sought by the Attorney General's office in the San Bernadino case is absent from the initial application initiating this proceeding in 2005, the amended application filed in 2006, the Proponent's Environmental Assessment (PEA),⁴¹ the record from the Phase I hearing, and the DEIR/EIS. There is insufficient evidence Imperial County has planned for the

³⁹ *The People of the State of California v. County of San Bernadino*, Petition for writ of mandate, paragraph 5, April 13, 2007.

⁴⁰ Settlement, <http://ag.ca.gov/newsalerts/release.php?id=1453&year=2007&month=8> (See pdf of Agreement at bottom)

⁴¹ Rule 2.4 of the Commission's Rules of Practice and Procedure requires submission of a PEA. The PEA shall include all information and studies required by the Commission's Information and Criteria list. Rule 2.4(b). Section V.3 of this list requires in depth analysis of all impacts which may be significant. Section V.4 of this list identifies air pollution resulting from transmission lines as a possible significant effect, and that cumulative effects must be considered. The widespread national and international attention to the issue of global warming, the applicant's own emphasis on renewable energy in its application, and the Commission's 2005 policy statement on global warming, discussed later in this section, provided ample notice to the Applicant that the PEA and an adequate application must provide detailed analysis of this issue as part of the Phase I proceeding, and not be reserved for analysis only after the release of the Draft Environmental Impact Report and Phase II of this proceeding. California has long argued that greenhouse gases are air pollutants and the U.S. Supreme Court has agreed with California, the Center for Biological Diversity, and other States and organizations who filed suit on this issue. See, *Massachusetts et al. v. Environmental Protection Agency*, 127 S. Ct. 1438; 167 L. Ed. 2nd 248 (2007).

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substantial growth SDG&E's witnesses have testified will occur if the STP application is approved, and no evidence Imperial County accounts for this growth in its General Plan. The only reasonable conclusion from this record is the STP will lead to many of the same deficiencies as those leading to the lawsuit against the County of San Bernadino.

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The Attorney General's office also filed an appeal and ultimately settled allegations the Contra-Costa County Board of Supervisors violated CEQA and the requirements of AB 32 in approving an EIR allowing ConocoPhillips to expand an oil refinery without properly documenting environmental impacts of the project, and failing to mitigate for increased greenhouse gas emissions.⁴² The appeal involved a single facility that purportedly would also be providing a benefit in producing clean fuel. In the present case, SDG&E has testified its proposed STP will result in increased greenhouse gas emissions from coal facilities throughout the West. Further, it concedes it did not model likely carbon dioxide costs as part of its transmission planning.⁴³ Until such information is available, the STP suffers the same deficiencies as the ConocoPhillips project, and possibly greater deficiencies because of the 50-100 year lifespan of the project and multiple facilities impacted by the project.

The increase in coal production SDG&E concedes will occur if the STP is approved is also at odds with the PUC's *Policy Statement on Greenhouse Gas Performance Standards*, issued on October 6, 2005 — 10 months prior to SDG&E's submission of the amended application in this proceeding. The Commission stated:

[T]here are approximately 30 proposed coal fired plants across the West, some of which are planned in anticipation of meeting demand in California. *The carbon dioxide emissions from just three 500 MW conventional coal-fired power plants would offset all of the emissions reductions from the IOUs' energy efficiency programs and would seriously compromise the State's ability to meet the Governor's GGIG goals. As the largest electricity consumer in the region, California has an obligation to provide clear guidance on performance standards for utility procurement.*⁴⁴ (emphasis added)

The impact of the STP would, by itself, when compared to other fossil-fuel dependent options in front of the Commission, consume two-thirds of all investor owned utility efficiency measures throughout the state as identified by the Commission.⁴⁵ SDG&E concedes the STP would encourage the development of conventional power plants the Commission anticipated in its Policy Statement.⁴⁶ Similarly, approval of the STP could also be viewed as single-handedly

⁴² Settlement, California Department of Justice, September 11, 2007, <http://ag.ca.gov/newsalerts/release.php?id=1466&year=2007&month=9> (See pdf of Agreement at bottom of page)

⁴³ Testimony of SDG&E witness, Jan Strack, Tr., page 1378. It appears the limited modeling for CO₂ done by SDG&E was to assess its economic impact, and not the environmental impact of increased emissions.

⁴⁴ See <http://www.cpuc.ca.gov/PUBLISHED/REPORT/50432.htm>

⁴⁵ Mr. Marcus' testimony described at the beginning of this section found the STP would be responsible for nearly 1000 Mw of additional coal generation, the equivalent of two of the three 500 MW coal-fired plants described in the Commission's policy statement.

⁴⁶ Exhibit SD- 2, page 1-22.

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eliminating at least two-thirds of the energy savings anticipated by the Commission's three year program adopted in a ground breaking 2007 rulemaking to encourage energy efficiency.⁴⁷

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California law not only regulates overall greenhouse gas emissions, but also establishes greenhouse gas emission performance standards on generating facilities through Senate Bill 1368.⁴⁸ The legislation specifically references California's leadership among other states, declaring "as the largest electricity consumer in the region, California has an obligation to provide clear guidance on performance standards for procurement of electricity by load-serving entities."⁴⁹ Among other things, the legislation limits the financial commitment utilities can make to any generator that does not meet emission performance standards established by the PUC.⁵⁰ The PUC issued an initial decision implementing SB 1368 in January 2007, describing efficiency performance standards as akin to an appliance efficiency standard.⁵¹ The standard effectively eliminates long term contracts from coal generating facilities.⁵² It was the clear intent in passing this legislation not to encourage the "ramping up"⁵³ of coal production, even for short term contracts.

The calculations used by the Commission and BLM in the DEIR/EIS to calculate GIIG emissions were those of the California Independent Systems Operator (CAISO). These numbers are substantially lower than those presented by UCAN during the Phase I proceeding. The CAISO and DEIR/EIS calculations are based on the assumption that the STP will carry 900 MW of renewable energy from the proposed Stirling concentrated solar power facility. Page D.11-51. It is assumed this energy would replace fossil fuels. Testimony of Phase I demonstrated that even if Stirling were to receive financing and permits from the BLM – of which they have neither – the technology simply isn't ready to operate on a large scale.⁵⁴ The delivery of renewable energy anticipated by CAISO simply isn't going to happen as anticipated because the technology isn't ready for commercial operation. Tellingly, in a recent submittal to the PUC,

B0041-50

⁴⁷ *Interim Opinion On Phase I Issues: Shareholder Risk/Reward Incentive Mechanism for Energy Efficiency Programs*, September 21, 2007, PUC Rulemaking 06-04-010.

⁴⁸ SB 1368 was approved by the Governor on September 29, 2006 and is found in the Public Utilities Code, beginning at Section 8340.

⁴⁹ Cal. Pub. Util. Code § 8340(m)

⁵⁰ Cal. Pub. Util. Code Section 8341(a).

⁵¹ CPUC *Interim Opinion on Phase I Issues: Greenhouse Gas Emissions Performance Standard*, D.07-01-039, January 25, 2007, pages 32 and 226.

⁵² CPUC *Interim Opinion on Phase I Issues: Greenhouse Gas Emissions Performance Standard*, D.07-01-039, January 25, 2007, page 226, paragraphs 2 and 3.

⁵³ SDG&E June 15, 2007 Rebuttal Testimony Volume 2 of 2 – Public, Updated on 7/6/07, Jan Strack, Exhibit SD-16, page 29. Mr. Strack's testimony discusses the ramping up of coal. Purchases of coal for delivery outside of CA enabled by the STP would not be limited to short-term contracts.

⁵⁴ See testimony of Dr. Barry Butler, (Attachment 11 to these comments), and additional exhibits submitted by the Center and Sierra Club during Phase I documenting that papers commissioned by both the PUC and CEC reached the same conclusions as Dr. Butler.

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SDG&E opposed PUC draft resolution E-4160 in part because it requires utilities to demonstrate the viability of prospective power purchase agreements. The PUC approved the resolution over SDG&E's objections on April 10, 2008.⁵⁵

B0041-50 cont.

During Phase I, SDG&E argued that even if Stirling fails, the energy queue will replace the project with other, unidentified renewable projects. But Imperial County has submitted letters to the Commission saying it has not received applications for such projects, and SDG&E elsewhere in its testimony concedes the energy queue is unreliable. SDG&E also testified it could not guarantee renewable energy ultimately would use the STP and would oppose any efforts to require such use, or even guarantee a certain percentage of the use of the line would be fossil fuels.⁵⁶ Renewable energy should not be assumed to replace fossil fuels in calculating the project GHG emission impacts.

In addition to promoting the increased use of coal, another factor not considered in the DEIR/EIS estimate of GHG emissions was the likelihood the STP would lead to increases in liquefied natural gas (LNG). SDG&E Chief Operating Officer Niggli, in response to questions from the administrative law judge during cross examination on April 7, 2008, conceded that the a major part of Sempra's corporate plans include an infrastructure supporting expansion of its gas operations. Mr. Niggli also admitted the Company has no plan in place to meet state GHG requirements and the STP conceivably may carry more fossil fuel energy than renewable energy. The likely link between the STP and increased LNG production will lead to substantial GHG emissions not calculated in the DEIR/EIS.

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The link to LNG is described in the Smart Energy 2020 Plan, among other places in Smart Energy Attachment B, which includes a Sempra produced map linking the STP to its natural gas pipelines, and Attachment C, which describes the lifecycle GHG burden from LNG. In addition, we understand an August 23, 2007 report from Carnegie Mellon University concludes that lifecycle LNG emissions imported from abroad and used for electricity generation could have 35% higher lifecycle GHG emissions than coal. These emissions are not included in the DEIR/EIS calculations for project GHG emissions.

The GHG emission benefits appear to include the La Rumorosa wind projects. The DEIR/EIS suggests there is limited capacity on the SWPL, and the projected wind projects will only occur if the STP is constructed, thereby freeing up capacity. As discussed elsewhere, the STP will free capacity for LNG and increased coal production, thereby increasing GHG emissions. To achieve GHG reductions, existing capacity should be used to replace fossil fuel generated power with renewable energy, rather than create a double increase in GHG emissions: first, by constructing the STP, and then by using the increased capacity to increase fossil fuel generated power. A

⁵⁵ SDG&E's opposition to the resolution was submitted on April 1, 2008, and its objection is at page 6. See also the CBD and Sierra Club Phase I brief, filed November 9, 2007, pages 9-15, and associated references, outlining the reasons the Stirling project will fail.

⁵⁶ See Phase I opening day testimony of James Avery, and Phase 2 opening day testimony of COO Niggli. It is our understanding that the Tehachapi project supported by SCE is already subscribed with wind power agreements. This approach, also used and endorsed in Minnesota (see our phase 1 brief, pages 35-36, November 9, 2007), represents viable renewable projects and some assurance the project is for renewable energy. However, it does not address the unprecedented, destructive impact the STP alternatives would have on public lands.

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decrease in emissions is easily achieved by allowing existing fossil fuel contracts on the SWPL to expire as scheduled in 2011, and replacing this generation with power from the La Rumorosa wind projects or other renewable sources, as determined after appropriate environmental reviews are completed. The STP, as structured with increased GIIG emissions and no assurances of renewable energy use, places the PUC in the position of violating AB 32 and state policy if it were to approve of the project.

B0041-51 cont.

The calculations include presumed GHG emission benefits from the Esmeralda-San Felipe Geothermal Project. However, not considered is whether there is adequate transmission for geothermal projects without Sunrise. Both DRA and UCAN testified there is sufficient transmission without constructing the STP, and without the GHG emissions that would occur in the construction process. The ISO also testified to the availability of about 700 MW capacity without the STP. If this project is likely to occur without the STP, it should not be considered a GIIG emission credit for the STP. The Center and the Sierra Club have protested a clause in the pending contract for the Esmeralda project which would make approval of the STP a condition precedent. In support of our position in the protest of this contract clause is the report of the Independent Evaluator, which concluded that the STP is not needed for delivery of this energy.⁵⁷ Therefore, no GHG reductions should be attributed to this project. SDG&E presents a far more restrictive view of existing capacity, but even it concedes the capacity may exist.

B0041-52

Impacts of sulfur hexafluoride (SF₆) do not appear to be fully accounted for in the GHG emission calculation in the DEIR/EIS, though the problem is noted. Even small quantities of SF₆ releases are significant because of the GHG intensity of this pollutant. The California Air Resources Board has identified the need to identify and account for SF₆ releases but is not scheduled to develop a strategy until 2011. D.11-16. Inability to account for these releases is exasperated because SDG&E, unlike other investor owned utilities in California (PG&E and SCE), has refused to participate in a volunteer program to monitor these releases and reduce these releases. D.11-53 and 54. While the DEIR/EIS recognizes the problem, it must also include the likely releases of this pollutant and GHG contributions in its calculations. SDG&E should not be rewarded for its failure to account for likely releases of this GIIG pollutant.

B0041-53

GHG emissions from fires likely to result from construction or operation of the line over its life also are apparently not accounted for in the DEIR/EIS. These fires, as discussed elsewhere in these comments and in testimony submitted by the Mussey Grade Road Alliance (MGRA) in both Phases 1 and 2 of A.06-08-010, and testimony of the Center and Sierra Club in Phase 2, are foreseeable. The October 2007 fires are but one example. Three of these fires are already reported by CAL FIRE as originating from SDG&E operations. We note that in questioning of the MGRA witness on April 8, 2008, it became apparent that SDG&E had control of the data it insinuated was necessary to calculate a risk of fire during the life of the STP, but destroyed much of that data only to criticize calculations made based on remaining data. Again, such conduct

B0041-54

⁵⁷ See SDG&E advice letter 1963 to the PUC; related protest letters, and Supplemental Advice Letter 1963-E-A, which attaches the Independent Evaluator's report. Also note that SDG&E included a similar clause making approval of the STP a condition precedent to its contract for the first 300 MW of power generated by the Stirling project, but then conceded in its phase 1 testimony that the STP was not actually needed to deliver this energy. Presumably the 300 MW of power will be available for other renewable projects, if they materialize, when the Stirling project fails to meet its contractual obligations as previously discussed in these comments.

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must not be condoned and fire risk, and associated GIIG emissions, should be calculated with consideration that risks will increase over the life of the project as the impacts of climate change are felt in temperature, potential for violent weather, and increased fuels from habitat conversion. See Phase 2 testimony of Richard Halsey and Dr. Mitchell.

B0041-54 cont.

The mitigation relied upon to reduce the increase in carbon releases is carbon credit trading markets. However, the DEIR/EIS recognizes these markets are not fully formed, regulated, or enforceable. D.11-52- 53. We agree with this conclusion.

B0041-55

The impacts on GHG emissions also fail to consider the competition the STP would create to make other renewable energy choices less competitive. Power carried on the STP would directly compete with efficiency measures, the California Solar Initiative, and in-basin renewable energy options, including projects similar to the recently announced SCE rooftop solar program. The STP increases overall GHG emissions while in basin and rooftop solar projects would reduce the emissions, increase energy reliability, and increase public safety risks posed by a power line in what was described by both conservation group witness Halsey and SDG&E fire expert Mortier in Phase 2 testimony as the most severe fire risk region in the country, with evidence that the risk will increase with climate change over the life of the project.⁵⁸ The public subsidy necessary to construct the line would be better spent on in basin solar options that reduce the carbon footprint of the State. Money directed to the STP reduces available and potential funding for projects that will reduce GHG emissions, and makes it more difficult for these projects to compete when there is an abundance of cheap fossil fuel made available by the increased transmission.

B0041-56

The DEIR/EIS also does not consider creative funding mechanisms that may be utilized to make in-basin solar options increasingly available. The City of Berkeley recently instituted a change in city taxes to allow homeowners to install solar cells without increasing their energy costs. Similar programs in California are now being used by private companies to allow homeowners to install solar cells without the traditional upfront costs associated with solar installation.⁵⁹

By concluding that growth will occur with or without the STP, the DEIR/EIS does not appear to account for growth SDG&E's own witness, Mr. Kemp, presented in Phase 1 testimony that the STP will spur additional growth and cumulative impacts, including GHG emissions associated with growth. This growth, if believed likely by the PUC, should also be accounted for in GHG emission estimates. The CEC has identified land use patterns as a significant source of GHG emissions. It can be concluded from Mr. Kemp's testimony that the impacts of sprawl in Imperial County resulting from the STP have not been accounted for in the calculations used in the DEIR/EIS.

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The STP alternatives are contrary to law and to the GHG emission policies of the PUC, CEC, the Governor, and the Attorney General's office and should be rejected for these reasons. While we

⁵⁸ See prepared testimony of Richard Halsey and cross examination testimony of Mr. Mortier on April 8, 2008.

⁵⁹ See, as one example, funding mechanisms by Solar City, among others, at <http://www.grist.org/feature/2008/04/11/?source=daily>

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agree with the DEIR/EIS finding that GHG emissions present a significant unmitigable impact, and that any increase in GHG emissions must be considered significant, the public should have an opportunity to comment on the full scope of these increases.

B0041-57 cont.

Conclusion.

All STP alternatives represent an unprecedented impact on public lands, fail to provide assurances for the increased use of renewable energy, violate AB 32 requirements to reduce GHG emissions, hinder progress in achieving increased use of renewable energy in an environmentally appropriate manner, and present a substantial risk of catastrophic fires. The Center and the Sierra Club thank the PUC and BLM for identifying many of the environmentally destructive aspects of the proposed STP in all of its forms, request that deficiencies in the DEIR/EIS be addressed and the corrected document be recirculated for public comment, and that the agencies select environmentally superior, non-transmission alternatives to meet the energy and environmental needs of the region.

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Thank you for your consideration of these comments. Please send all future notices and correspondence to our attention at Center for Biological Diversity, 1095 Market Street, Suite 511, San Francisco, CA 94103.

Sincerely,

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**Index for Documents Included with the Center for Biological Diversity/Sierra Club's
Comments on the Sunrise Powerlink Project DEIR/EIS**

Attachment 1: Comments on Draft EIR/EIS, Sunrise Powerlink Project, prepared by the San Diego Chapter of the Sierra Club, April 10, 2008

Attachment 2: Chart comparing the environmental impacts of Sunrise with the environmental impacts of every other transmission project identified in the CPUC's public database

Attachment 3: San Diego, Smart Energy 2020 Plan, October 2007 can be accessed at the following website: <http://www.sdsmartenergy.org/smart.shtml>

Attachment 4: CPUC testimony of Ileene Anderson for Phase 2 of the Sunrise Powerlink Transmission Project Proceeding, (Titled: Phase II Direct Testimony of Ileene Anderson on Behalf of the Center for Biological Diversity and the Sierra Club)

Attachment 4 includes copies of the following literature that Ileene Anderson cited in her testimony:

Ambrose, R.F. 2000. Wetland mitigation in the United States: Assessing the success of mitigation policies. *Wetlands (Australia)* 19: 1-27.

Bowler, P.A. 1989. Riparian Woodland: An Endangered Habitat in Southern California. In *Endangered Plant Communities of Southern California* A. A. Schoenherr ed. Proceedings of the 15th Annual Symposium, Southern California Botanists, Special Publication No. 3: 80-97.

California Department of Fish and Game (CDFG)

2003. *The Vegetation Classification and Mapping Program: List of California Terrestrial Natural Communities Recognized by The California Natural Diversity Database* September 2003 Edition. 77 pp.

2000. Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities. Revised May 8, 2000. Pgs 2.

California Native Plant Society

2001. CNPS Botanical Survey Guidelines. Revised June 2, 2001. Pgs 3.

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Fiedler, P.L. 1991. Mitigation-Related Transplantation, Relocation and Reintroduction Projects Involving Endangered and Threatened and Rare Plant Species In California. Report to California Department of Fish and Game – Endangered Plant Program. June 14, 1991. Pgs. 144.

Goodwin, C.G, C.P. Hawkins and J.L. Kershner 1997. Riparian Restoration in the Western United States: Overview and Perspective. *Restoration Ecology* 5(4S): 4-14.

Hogan D. C., J.O. Sawyer and C. Saunders 1996. Southern Maritime Chaparral. *Fremontia* 24 (4): 3-7.

Longcore, T., R. Mattoni, G. Pratt, and K. Rich. 1997. On the Perils of Ecological Restoration: Lessons from the El Segundo Blue Butterfly. In *The Second Interface Between Ecology and Land Development in California* J.E. Keeley, Coordinator. Occidental College, April 18-19, 1997.

Lovich, J. E. and D. Bainbridge. 1999 Anthropogenic Degradation of the Southern California Desert Ecosystem and Prospects for Natural Recovery and Restoration. [Environmental Management](#) 24: 309-326.

Sudol, M.F. and R.F. Ambrose. 2002. The Clean Water Act and habitat replacement: Evaluation of mitigation sites in Orange County, California. *Environmental Management* 30: 727-734.

U.S. Fish and Wildlife Service.
1993. Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for Three Vernal Pool Plants and the Riverside Fairy Shrimp. 58 FR 41384

1998. Vernal Pools of Southern California Recovery Plan. U.S. Fish and Wildlife Service, Portland, Oregon. 113+ pp.

Attachment 5: CPUC testimony of Jerre Stallcup for Phase 2 of the Sunrise Powerlink Transmission Project Proceeding, (Titled: Phase II Direct Testimony of Jerre Ann Stallcup on Behalf of the Center for Biological Diversity and the Sierra Club)

Attachment 5 includes copies of the following literature that Jerre Stallcup cited in her testimony:

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- Atwood, J.L., A. Pairis, M.R. Fugagli and C.A. Reynolds. 2002. Effects of fire on California gnatcatcher populations on Camp Pendleton Marine Corps Base. Unpubl. technical report, prepared for U.S. Marine Corps, Oceanside, California. Contract No. N68711-98-LT-80045. Antioch New England Institute, Keene, NH. March.
- Brussard, P.F., and J.C. Tull. 2007. Conservation biology and four types of advocacy. *Conservation Biology* 21(1):21-24.
- Davies, C.P., M.A. Simovich, and S.A. Hathway. 1997. Population genetic structure of a California endemic branchiopod, *Branchinecta sandiegonensis*. *Hydrobiologia* 359:49-158.
- Field, C.B., G.C. Daily, F.W. Davis, S. Gaines, P.A. Matson, J. Melack, and N.L. Miller. 1999. Confronting climate change in California: ecological impacts on the Golden State. Union of Concerned Scientists, Cambridge, MA and Ecological Society of America, Washington, DC.
- Fisher, R.N., A.V. Suarez, and T.J. Case. 2002. Spatial patterns in the abundance of the coastal horned lizard. *Conservation Biology* 16:205-215.
- Keeley, J.E., and C.J. Fotheringham. 2001. Historic fire regime in Southern California shrublands. *Conservation Biology* 15:1536-1548.
- Kueppers, L.M., M.A. Snyder, L.C. Sloan, E.S. Zavaleta, and B. Fulfroost. 2005. Modeled regional climate change and California endemic oak ranges. *Proceedings of the National Academy of Sciences* 102(45):16281-16286.
- Lenihan, J.M., R. Drapek, R. Neilson, and D. Bachelet. 2003. Climate change effects on vegetation distribution, carbon stocks, and fire regimes in California. Appendix IV in Wilson, T., L. Williams, J. Smith, and R. Mendelsohn, *Global climate change and California: potential implications for ecosystems, health, and the economy*. Consultant Report prepared for the California Energy Commission by the Electric Power Research Institute, Palo Alto, CA. 500-03-058CF. August.
- Mayer, A.L., and W.O. Wirtz, II. 1995. Effects of fire on the ecology of the California Gnatcatcher (*Polioptila californica*), and associated bird species, in the coastal sage scrub community of southern California. Pages 77-70 in Keeley, J.E., and T. Scott (eds.), *Brushfires in California Wildlands: Ecology and Resource Management*. Intl. Assoc. Wildland Fire; Fairfield, WA.

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- Minnich, R.A., and R.J. Dezzani. 1998. Historical decline of coastal sage scrub in the Riverside-Perris Plain, California. *Western Birds* 29:366-391.
- Mitrovich, M.J., and R.A. Hamilton. 2007. Status of the cactus wren (*Campylorhynchus brunneicapillus*) within the coastal subregion of Orange County, California. Prepared for Nature Reserve of Orange County. May.
- O'Connell, M.W., and R.A. Erickson. 1998. An example of the California gnatcatcher nesting in restored coastal sage scrub. *Western Birds* 29:434-438.
- Onaka, J. 2003. Supplemental data on habitat conservation and management, Figure B1. Attachment B in SANDAG, Final MHCP Plan.
- Parmesan, C. 1996. Climate and species' range. *Nature* 382:765-766.
- Parmesan, C. 2006. Ecological and evolutionary responses to recent climate change. *Annu. Rev. Ecol. Evol. Syst.* 37:637-639.
- Parmesan, C., and G. Yohe. 2003. A globally coherent fingerprint of climate change impacts across natural systems. *Nature* 421:37-42.
- Pearson, R.G., and T.P. Dawson. 2005. Long-distance plant dispersal and habitat fragmentation: identifying conservation targets for spatial landscape planning under climate change. *Biological Conservation* 123:389-401.
- Rea, A.M., and K.L. Weaver. 1990. The taxonomy, distribution, and status of coastal California cactus wrens. *Western Birds* 21(3):81-126.
- Stallcup, J. A. 2007. Critical environmental concerns that should inform the CEQA/NEPA process for the Powerlink project. Testimony of Jerre Ann Stallcup, Conservation Biology Institute, Encinitas, CA. May.
- Wilson, T., L. Williams, J. Smith, and R. Mendelsohn. 2003. Global climate change and California: potential implications for ecosystems, health, and the economy. Prepared for the California Energy Commission by the Electric Power Research Institute, Palo Alto, CA. 500-03-058CF. August.
- Wirtz, W.O., II, A.L. Mayer, M.M. Raney and J.L. Beyers. 1997. Effects of fire on the ecology of the California Gnatcatcher, *Polioptila californica*, in California sage scrub communities. Pp. 91-96 in *Fire Effects on Rare and Endangered Species and Habitats*. Proceedings of a Conference Held at Coeur d'Alene, Idaho, November 13-16, 1995 (J. M. Greenlee, ed.). Intl. Assoc. Wildland Fire; Fairfield, WA.

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Attachment 6: CPUC testimony of Dr. Esther Rubin for Phase 2 of the Sunrise Powerlink Transmission Project Proceeding, (Titled: Phase II Direct Testimony of Esther Rubin on Behalf of the Center for Biological Diversity and the Sierra Club)

Attachment 6 includes copies of the following literature that Esther Rubin cited in her testimony:

- Boyce, W.M., R.R. Ramey, T.C. Rodwell, E.S. Rubin, and R.S. Singer. 1999. Population subdivision among desert bighorn sheep (*Ovis canadensis*) ewes revealed by mitochondrial DNA analysis. *Molecular Ecology* 8(1):99-106.
- Conservation Biology Institute, Pronatura, and The Nature Conservancy. 2004. *Las Californias Binational Conservation Initiative*—a vision for habitat conservation in the border region of California and Baja California. Prepared for The San Diego Foundation, Resources Legacy Fund Foundation, and The International Community Foundation. 43 pp. + appendices.
<http://www.consbio.org/cbi/projects/show.php?page=lcbi>
- DeForge, J.R., Ostermann, S.D, Willmott, C.W., Brennan, K, Torres, S., 1997. The ecology of Peninsular bighorn sheep in the San Jacinto Mountains, California. *Desert Bighorn Council Transactions* 41, 8-25.
- Jorgensen, M.C., Turner, R.E., 1975. Desert bighorn of the Anza-Borrego Desert State Park. *Desert Bighorn Council Transactions* 19, 51-53.
- Kuvlesky, W. P., Jr., L. A. Brennan, M. L. Morrison, K. K. Boydston, B. M. Ballard, and F. C. Bryant. 2007. Wind energy development and wildlife conservation: challenges and opportunities. *Journal of Wildlife Management* 71:2487-2498.
- Nellemann, C., I. Vistnes, P. Jordhoy, and O. Strand. 2001. Winter distribution of wild reindeer in relation to power lines, roads, and resorts. *Biological Conservation* 101:351-360.
- Reimers, E, B. Dahle, S. Eftestol, J. E. Coleman, and E. Gaare. 2007. Effects of a power line on migration and range use of wild reindeer. *Biological Conservation* 134:484-494.
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Vistnes, I. and C. Nellemann. 2001. Avoidance of cabins, roads, and powerlines by reindeer during calving. *Journal of Wildlife Management* 65: 915-925.

Vistnes, I., C. Nellemann, P. Jordhoy, and O. Strand. 2004. Effects of infrastructure on migration and range use of wild reindeer. *Journal of Wildlife Management* 68:101-108.

Attachment 7: CPUC testimony of Richard Halsey for Phase 2 of the Sunrise Powerlink Transmission Project Proceeding, (Titled: Phase II Direct Testimony of Richard Halsey on Behalf of the Center for Biological Diversity and the Sierra Club)

Attachment 7 includes copies of the following literature that Richard Halsey cited in his testimony:

Brooks, M.L., C.M D'Antonio, D.M. Richardson, J.B. Grace, J.E. Keeley, J.M. Ditomaso, R.J. Hobbs, M.Pellant, and D. Pyke (2004). Effects of invasive alien plants on fire regimes. *Bioscience* 54: 677-688.

Brooks, M.L., and D.A. Pyke. 2001. Invasive plants and fire in the deserts of North America. Pages 1–14 *in* K.E.M. Galley and T.P. Wilson (eds.). *Proceedings of the Invasive Species Workshop: the Role of Fire in the Control and Spread of Invasive Species*. Fire Conference 2000: the First National Congress on Fire Ecology, Prevention, and Management. Miscellaneous Publication No. 11, Tall Timbers Research Station, Tallahassee, FL.

CEC. 2006. *Our Changing Climate. Assessing the Risks to California*. A summary report from the California Climate Change Center. CEC-500-2006-077.

Haidinger, T.L., and J.E. Keeley. 1993. Role of high fire frequency in destruction of mixed chaparral. *Madrono* 40: 141-147.

Keeley, J.E. 2000. Chaparral. *In North American Terrestrial Vegetation*, M.G. Barbour and W.D. Billings (eds.). Cambridge University Press.

Keeley, J.E. 1995. Future of California floristics and systematics: wildfire threats to the California flora. *Madrono* 42: 175-179.

Keeley, J. E., C. J. Fotheringham, and M. Morais. 1999. Reexamining fire suppression impacts on brushland fire regimes. *Science* 284:1829-1832.

Miller, N.L. and N.J. Schlegel. 2006. Climate change projected fire weather sensitivity: California Santa Ana wind occurrence. *Geophysical Research Letters* 33: L15711.

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Zedler, P.H. 1995. Fire frequency in southern California shrublands: biological effects and management options, pp. 101-112 in J.E. Keeley and T. Scott (eds.), *Brushfires in California wildlands: ecology and resource management*. International Association of Wildland Fire, Fairfield, Wash.

Attachment 8: CPUC testimony of Dr. Travis Longcore for Phase 2 of the Sunrise Powerlink Transmission Project Proceeding (Titled: Phase II Direct Testimony of Travis Longcore on Behalf of the Center for Biological Diversity and the Sierra Club)

Attachment 8 includes copies of the following literature that Dr. Longcore cited in his testimony:

Able, K. P. 1970. A radar study of the altitude of nocturnal passerine migration. *Bird-Banding* 41:282–290.

Alonso, J. C., J. A. Alonso, and R. Muñoz-Pulido. 1994. Mitigation of bird collisions with transmission lines through groundwire marking. *Biological Conservation* 67:129–134.

Ambrose, R. F., J. C. Calaway, and S. F. Lee. 2006. An evaluation of compensatory mitigation projects permitted under Clean Water Act Section 401 by the California State Water Quality Control Board, 1991–2002. California State Water Resources Control Board, Sacramento, California.

Andersen, D. E., O. J. Rongstad, and W. R. Mytton. 1989. Response of nesting red-tailed hawks to helicopter overflights. *Condor* 91:296–299.

APLIC. 1994. *Mitigating bird collisions with power lines: the state of the art in 1994*. Edison Electric Institute, Washington, D.C.

Arnett, E. B., W. K. Brown, W. P. Erickson, J. K. Fiedler, B. L. Hamilton, T. H. Henry,

A. Jain, G. D. Johnson, J. Kerns, R. R. Koford, C. P. Nicholson, T. J. O’Connell, M. D. Piorkowski, and R. D. Tankersley, Jr. 2008. Patterns of bat fatalities at wind energy facilities in North America. *Journal of Wildlife Management* 72:61–78.

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Attachment 9: California Energy Commission, July 2, 2007, Comments On U.S. Department of Energy's Draft National Interest Electric Transmission Corridor Designation - Southwest Area National Corridor

Attachment 10: *The California Environmental Quality Act: On the Front Lines of California's Fight Against Global Warming*, September 2007, a Center for Biological Diversity Report

Attachment 11: CPUC testimony of Dr. Barry Butler for Phase 1 of the Sunrise Powerlink Transmission Project Proceeding (Titled: Phase I Direct Testimony of Dr. Barry Butler on Behalf of Conservation Groups)