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OFFICE OF
THE CITY ATTORNEY
 CITY OF SAN DIEGO

MICHAEL J. AGUIRRE
 CITY ATTORNEY

CIVIL DIVISION
 1200 THIRD AVENUE, SUITE 1620
 SAN DIEGO, CALIFORNIA 92101-4178
 TELEPHONE (619) 236-6220
 FAX (619) 236-7215

April 11, 2008

CPUC/BLM
 c/o Aspen Environmental Group
 235 Montgomery Street, Suite 935
 San Francisco, CA 94104

Re: Draft EIR/EIS for Sunrise Powerlink Project
 CPUC Case No. 06-08-010

To Whom it May Concern:

Having reviewed the referenced Draft Environmental Impact Report/Environmental Impact Statement [DEIR], I must express my concerns about San Diego Gas & Electric's [SDG&E's] proposed Sunrise Powerlink Project [Project]. As a general matter, the Project's significant environmental impacts do not appear, from the DEIR, to be either susceptible to adequate mitigation or justifiable by overriding considerations. Further, the DEIR has failed to consider all necessary aspects of the Project, in that impermissible piecemealing is evident. Based upon substantial evidence in the DEIR's administrative record, including these comments, it is evident a fair argument can be and has been made that significant impacts may occur that have not yet been adequately evaluated. As a consequence, the DEIR, including the scope of the proposed project, other project alternatives and mitigation, should be amended and recirculated to reflect additional analysis and evidence. See CEQA Guidelines §§15065 and 15088.5.

I. The DEIR Suggests that a Statement of Overriding Considerations Cannot be Supported.

A fundamental tenet of environmental law in California, under the California Environmental Quality Act [CEQA], is that where a proposed project would have significant adverse environmental consequences that could not be mitigated, it may only be approved if, with respect to *each such effect*, the record contains substantial evidence to support a finding that "specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects on the environment." CEQA, §21081(b); *see also* CEQA Guidelines, §§15091(b) and 15093; *Village Laguna of Laguna Beach, Inc. v. Board of Supervisors* (1982) 134 Cal. App. 3d 1022 (finding must be stated and supported by substantial evidence, and accompanied by an explanation of how the evidence supports the finding).

Thus, the CPUC is required to trace the "analytic route" from raw evidence to its conclusions. 11 Cal. 3d at 515, 113 Cal.Rptr. at 841. As highlighted by the California Supreme Court, these findings requirements will mean the lead agency will "draw legally relevant subconclusions supportive of its ultimate decision" that would "facilitate orderly analysis and minimize the likelihood that the agency will randomly leap from evidence to conclusions." 11 Cal. 3d at 516. Findings cannot simply contain bare conclusions. See CEQA Guideline Section 15091. *Rio Vista Farm Bureau Ctr. v. County of Solano* (1992) 5 Cal. App. 4th 351, 373; *Sacramento Old City Ass'n v. City Council* (1991) 229 Cal. App. 3d 1011, 1034; *Resource Defense Fund v. LAFCO* (1987) 191 Cal. App. 3d 886; *Citizens for Quality Growth v. City of Mt. Shasta* (1988) 198 Cal. App. 3d 433, 440; *Village Laguna of Laguna Beach, Inc. v. Board of Supervisors* (1982) 134 Cal.App. 3d 1022, 185 Cal.Rptr. 41. Findings can be supported by and incorporate by reference those facts found in the EIR or other documents in the record. However, this assumes that such facts exist in the record. Explicit written findings on an issue may be required when the record does not actually show the reason for the lead agency's action. See *Resource Defense Fund v. LAFCO* (1987) 191 Cal.App.3d 886, 236 Cal.Rptr. 794. See *CEB's Practice Under the California Environmental Quality Act*, V. 1, Ch. 17, Sections 17.22-17.28 (Rev. Nov. 2005).

At page ES-4 of the Executive Summary, the DEIR states that the Project would give rise to "50 significant, unmitigatable impacts." Most troubling among these, as stated at page ES-25, "because total construction GHG [greenhouse gas] emissions exceed the GHG reductions achieved due to avoided power plant emissions over 40 years of transmission line operation, the Proposed Project would cause an overall net increase in GHG emissions and a significant climate change impact." For a Project that has been sold to the public by the proponent as necessary to increase our reliance on renewable energy sources that reduce GHG emissions, this is a devastating conclusion. It calls into grave question the Project's environmental value, even if one assumes that the Project will lead to greatly increased use of renewable generation sources.

I see nothing in the DEIR that would suggest that overriding considerations would, or could, support approval of the Project despite this serious environmental harm, to say nothing of dozens of others. Indeed, the importance of this effect is underscored by the fact that California law, the Global Warming Solutions Act, AB 32, commits the state to a goal of an 80% reduction in GHG emissions by 2050 – exactly corresponding to the life of the proposed Project. It is difficult to imagine overriding considerations so powerful that they could justify knowingly moving California farther from this legislatively mandated goal. Certainly the DEIR reveals none. Unless such facts emerge in a manner that is not apparent in the DEIR, the law would potentially preclude Project approval as currently proposed.

II. The DEIR Ignores an Obvious Foreseeable Expansion of the Project, Resulting in Unlawful “Piecemealing.”

It is fundamental law under CEQA that environmental analysis must consider not only the proposed Project as identified by its proponent, but also the “whole of the action” including any “future expansion” that is “a reasonably foreseeable consequence of the initial project” that will “likely change the scope or nature of the initial project or its environmental effects.” *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal. 3d 376, and *McQueen v. Board of Directors of the Mid-peninsula Regional Open Space District* (6th Dist. 1988) 202 Cal. App. 3d 1136, 1143; *see also* Remy & Thomas’ *Guide to CEQA* (11th Ed. 2007) at 92-93; *and see* CEQA § 21065 and CEQA Guidelines §15378.

The proponent’s application expressly states an intention that the Project will lead to a 500 kV “Full Loop” into Southern California Edison territory. *See* SDG&E August 4, 2006 Application, p. VI-4 (“The Full Loop would complete the 500kv loop through Southern California, connecting SCE’s 500kV Palo Verde-Devers-Valley-Serrano system to SWPL.”) As witness Bill Powers has observed in his Phase II testimony, “the Full Loop described by SDG&E is missing one piece, an interconnection between the Sunrise Powerlink’s Central substation near Lake Henshaw and the LEAPS 500 kV substation on Camp Pendleton’s northern boundary.” Bill Powers, March 12, 2008 Phase II Testimony for Powers Engineering, p. 15. Given that the Full Loop is a stated intention of the Project’s proponent, it can hardly be doubted that the interconnection that Mr. Powers describes is a “reasonably foreseeable” future expansion of the Project. The DEIR acknowledges the foreseeability of this expansion at page B-31, but fails to analyze it within the “whole of the action.” It is obvious that this foreseeable expansion would add environmental impacts beyond those of the Project as proposed. Even if not analyzed as a part of the Project, they should, at a minimum, have been analyzed as “cumulative impacts.” *Arviv Enterprises, Inc. v. South Valley Area Planning Commission* (2002) 101 Cal. App. 4th 1333; *see also* CEQA Guideline §§15064 and 15130. There is no reason to believe that the interconnection to SCE territory would, by itself, increase the use of renewables. However, construction of such a connection would likely produce GHG emissions in a manner similar to those resulting from the proposed Project. In all likelihood, then, the disturbing negative impact of the Project on overall GHG emissions over the Project’s life, described in Section I of this comment letter, would be exacerbated by the interconnection to SCE. The DEIR’s failure to analyze this possibility is a significant defect. *See also* CEQA Guidelines §§15082, 15121 and 15124.

In addition, the reasonably foreseeable consequence of the Project, with these additional transmission lines, is a potential environmental impact on or to the La Jolla Indian Reservation. Neither consultation with representatives of the La Jolla Indian Reservation nor analysis of these potential direct or cumulative impacts is reflected in the DEIR. *See* Bill Powers, March 12, 2008 Phase II Testimony, pp. 18, 20 and 21. *See* CEQA §§21104 and 21153, and CEQA Guidelines §§15064.5(d) and 15129.

III. The DEIR Fails to Adequately Address an Aggressive, In-Basin Solar Rooftop Initiative.

As the ALJ reportedly recognized on the first day of testimony in Phase II, the March 27, 2008 application of Southern California Edison in Case No. A-08-03-015 demonstrated the viability of large scale deployment of solar rooftop installations in urbanized areas. Such installations would promote reliability, cost efficiency, and the use of renewables – three purported goals of the proposed Project – but would not require major transmission expansions like the proposed Project, and thus would likely involve few of the Project’s dozens of unmitigatable impacts. Despite this potential, evidenced by both the recent SCE application and the testimony of Bill Powers, the DEIR’s “New In-Area Renewable Generation Alternative,” presented at §E.5, fails to capture the very real possibility of hundreds of megawatts of rooftop solar installations in the San Diego load center, focusing instead on the possible deployment of a questionable solar technology near Borrego Springs. The failure of the DEIR to consider a large scale, in-basin solar deployment is a significant defect because it underestimates the potential for such a plan to achieve the proposed Project’s goals while minimizing environmental impacts. Under CEQA, the Project alternatives that must be considered “shall 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.

IV. The DEIR Fails to Adequately Analyze and Consider the Need for Reasonably Feasible Mitigation.

Many of the DEIR’s conclusions that certain impacts have been mitigated, or that other mitigation is infeasible, are not supported by the record. Furthermore, other reasonably feasible mitigation has yet to be fully explored. I refer the CPUC to the various comments in the record prepared by experts in their field to demonstrate why further analysis and clarification on the mitigation proposed is critical to a determination of the adequacy of the proposed Project and alternatives. Mitigation should consider reasonable and feasible on-site mitigation measures as well as appropriate off-site measures. See CEQA Guidelines §§15091, 15097 and 15126.4. For example, the Greenhouse Gas Emission impacts associated with the proposed project and its cumulative effect needed to be more fully analyzed. This would and should have included an analysis of the impacts associated with the Full Loop and the impacts associated with sources of energy generation.

The proposed project’s carbon dioxide emissions (both direct, indirect and cumulative) should be adequately quantified in order to determine appropriate on-site and off-site mitigation. For example, the project mitigation does not adequately address, where feasible, GHG indirect or cumulative impacts from sources of energy generation such as coal generation, other fossil fuels, liquefied natural gas and solar troughs. Solar troughs, for instance, require a substantial water supply which in turn will require substantial energy consumption to get the water to the solar thermal plant. See Bill Powers March 12, 2008 Phase II Direct Testimony pp. 3 and 4. Such energy reliance is a potential consequence of the Project as proposed. The GHG reduction

benefits of the proposed Project should be compared against the GHG increases associated with the proposed Project, in order to analyze the net effect and feasible mitigation. *See Bill Powers San Diego Smart Energy 2020*. If, after analyzing and requiring all reasonable and feasible on-site mitigation measures for avoiding or reducing greenhouse gas-related impacts, the CPUC determines that additional mitigation is required, then the CPUC should consider additional off-site mitigation. Examples of off-site mitigation might include, after appropriate analysis, funding off-site mitigation projects (e.g., other alternative energy projects, or energy or water audits for existing projects) that will reduce carbon emissions; conducting an audit of SDG&E's other existing operations and agreeing to retrofit; or, purchasing carbon "credits" from another entity that will undertake mitigation. *See Office of the California Attorney General Global Warming Measures at page 4, Updated: 3/11/08*. For an example of concerns and recommendations raised by the California Attorney General on recent projects relating to GHG, see Attorney General Comments on the Chevron Energy and Hydrogen Renewal Project and Draft Environmental Impact Report (Project No. 1101974; SCH# 2005072117), dated July 9, 2007 and March 6, 2008; Attorney General Comments on the Great Valley Ethanol Final Environmental Impact Report, Hanford, Kings County, dated February 19, 2008; and, Attorney General Comments on the Notice of Preparation of EIR For American Ethanol Inc. Com Ethanol Plant, dated January 28, 2008.

V. Conclusion

The DEIR, despite the shortcomings outlined in these comments, reaches numerous important conclusions and raises and analyzes countless important issues. Most important, it concludes that the proposed Project ranks nearly at the bottom of the various alternatives in terms of environmental impacts. Further, it suggests nothing that would justify approval of this apparently environmentally inferior proposal in spite of the environmental harms identified. If anything, as discussed here, the DEIR may underestimate the environmental superiority of at least some alternatives. In light of this, it seems likely that, absent major new revelations, the Project cannot be approved as currently proposed.

In a March 25, 2008 letter, I expressed my concern to SDG&E over its apparently imminent failure (stated in a recent SEC filing) to meet state requirements to include 20% renewables in its generation portfolio by 2010. SDG&E, as a franchised utility, owes the City a contractual duty to comply with all applicable laws regarding the use of its facilities in City right-of-way. The City has, for years, been critical of SDG&E's exclusive reliance on transmission expansions as a means of increasing use of renewables.

Based upon substantial evidence in the DEIR's administrative record, including these comments, it is evident a fair argument can be and has been made that significant impacts may occur that have not yet been adequately evaluated. As a consequence, the DEIR, including the scope of the proposed project, other project alternatives and mitigation, should be amended and recirculated to reflect additional analysis and evidence. *See CEQA Guidelines Section 15065 and 15088.5*.

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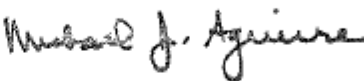
-6-

April 11, 2008

Thank you for considering these comments.

Sincerely yours,

MICHAEL J. AGUIRRE, City Attorney

By 
Michael J. Aguirre
City Attorney

MJA:MPC:sc

Condemnation of Property

The California Public Utilities Commission has not satisfied requirements to condemn lands for SDG&E's Sunrise Powerlink, based on its own regulations and in accordance with the California Environmental Quality Act, and due to San Diego Gas and Electric's opposition to provide just compensation and an interest in allowing a carcinogenic health damages and significant losses of life to be promoted over a large region without medical examination or CPUC review, all in opposition to the expressed public interests, the rights of people not to be endure life threatening endangerment, loss of home or property without full and equivalent replacement and just compensation, and in spite of known nondamaging alternatives that have not been reviewed by the CPUC nor its consultants, as is required.

The following is an excerpt from the CPUC manual on condemnations, as follows:

HOW DOES THE COMMISSION DETERMINE WHETHER THE CONDEMNATION OF PROPERTY BY A UTILITY IS IN THE PUBLIC INTEREST?

1. The Two Legal Standards for Determining Whether the Condemnation of Property is in the Public Interest – “Provider of Last Resort” and “The Four Part Test”.

Under SB 177, for the Commission to find that a proposed condemnation of property by a public utility is in the public interest, one of the following two standards must be met, either:

A. “Provider of Last Resort”.

The condemnation must be necessary to provide utility service to an unserved area as a provider of last resort, when there are no competing offers to provide service from facility based carriers. Or:

B. “The Four Part Test”.

The public utility must show all of the following:

- a. The public interest and necessity require the proposed project; and
- b. The property to be condemned by the public utility is necessary for the proposed project; and
- c. The public benefit of condemning the property outweighs the hardship to the property owner; and
- d. The proposed project is located in a manner most compatible with the greatest public good and the least private injury.

Items B.a through B.d use legal terms. These terms are similar to those used in certain sections of the State Eminent Domain Law. The Commission will determine whether the standards contained in Items B.a through B.d have been met based on the facts in each case and the applicable law.

However, the following information is presented to help public utilities, property owners, and other parties prepare to address Items B.a through B.d at the hearing:*

* This general information has been prepared by Commission staff and is based on

Legislative Committee Comments to certain sections of the State Eminent Domain Law and court decisions interpreting the State Eminent Domain Law. It is possible, however, that the Commission or the courts will interpret the requirements of SB 177 differently, based on its specific language and legislative history, or the facts of a particular case. Again, persons seeking advice regarding a particular case should consult an attorney.

2. Explanation of the Four-Part Test

A. The Public Interest And Necessity Require The Proposed Project

This requirement may be interpreted to mean that in order for the public utility to condemn the property to offer competitive services, the public utility's project, including its operations at the property in offering the competitive services, must contribute to the "good" of the community. In making this determination, the Commission may consider a number of factors including, but not limited to:

- The social and economic effects of the public utility's project, including its use of the property for offering competitive services in the area, such as the following examples:
- Is the utility service already provided adequate to serve the community?
- Would having an additional provider of the utility service benefit the community in any way (such as a broader selection of services, better customer service, the addition of new jobs, lower prices due to competition, etc.)?
- Would the competitive services to be provided by the public utility be available to the community as a whole, a number of persons in the community, or only a few persons?
- The environmental effects of the public utility's project, including its use of the property for offering competitive services.
- The effect of the public utility's project, including its use of the property for offering competitive services, on the appearance of the property, neighboring properties, and the community.

B. The Property Proposed To Be Condemned By The Public Utility Is Necessary For The Proposed Project

This requirement may be interpreted to mean that the public utility must prove that it has a real need to condemn the property to provide competitive services. In order for the property to be necessary for the provision of competitive services, the property must be suitable as the site for the public utility's use in offering the services.

The public utility should also show that it is necessary to condemn the particular interest in the property that the public utility is attempting to acquire, such as outright ownership, a lease, or an easement, to offer the services.

For example, public utilities, property owners, and other parties may wish to address issues such as:

- Is there a reasonable way for the public utility to provide competitive service without condemning the property (such as using existing facilities, selecting another site, etc.)?
- Is the property to be condemned suitable for use by the public utility in offering the competitive services, in view of its location, topography, existing buildings, environmental conditions, etc.?
- Could the public utility condemn less property and still provide the competitive services?
- Could the public utility condemn a lesser interest in the property (such as an easement rather than outright ownership) and still provide the competitive services?
- Is the public utility attempting to condemn the property in order to meet current or future needs for the competitive service?
- If the public utility is attempting to condemn the property in order to meet future needs for service, when is the need expected to arise?
- If the public utility is attempting to condemn the property in order to meet future needs for service, is there evidence that a new or increased need for this service will arise in the future? (For example, will there be a new or increased need for service based on planned growth in the community, etc.?)

C. The Public Benefit Of Acquiring The Property By Eminent Domain Outweighs The Hardship To The Owner Of The Property

Under this requirement, the Commission will weigh the evidence presented at the hearing to determine whether the benefit to the public that would result from the

public utility's condemnation of the property in order to offer competitive services is greater than the hardship to the property owner.

For example, at the hearing, public utilities and property owners may wish to address issues such as:

- Would the condemnation of the property for use by the public utility in providing competitive service result in any benefit to the public (such as increased or better service, lower prices due to competition, the addition of new jobs, etc.)?
- What problems (if any) would the property owner face if the property were condemned?
- Would the public utility's condemnation and use of part of the property interfere with the property owner's use and enjoyment of the rest of the property?
- Would the public utility's condemnation of the property require the property owner to relocate a home or business located on the property?

D. The Proposed Project Is Located In A Manner Most Compatible With The Greatest Public Good And The Least Private Injury

To satisfy this requirement, a public utility may need to analyze several possible sites for the public utility's operations in offering the competitive services. In order for the public utility to be able to condemn property, the public utility's project, including its operations in offering competitive services, must be located on a site that will benefit the public the most, and cause the property owner the least possible harm.

The public utility's choice of the property to be condemned may be considered correct unless the condemnation and use of another property by the public utility would result in a greater or equal benefit to the public and less harm to the property owner. However, the public utility may not be required to select another property if the condemnation and use of the other property in offering competitive services would result in less benefit to the public.

For example, at the hearing, public utilities and property owners may wish to address issues such as:

- The cost of the various properties considered for acquisition (if the cost of the property will affect the cost of service to the public)
- The convenience of the various properties considered as the site for use by the public utility and (if the site will be used by customers) the public
- The environmental effects of the public utility's use of the various properties considered for acquisition
- The effect of the public utility's use of the various properties considered for acquisition on the appearance of the properties, the neighborhoods, and the community
- Are there other properties in the area that would be better sites for the public utility's use in offering the competitive services than the property that the public utility is seeking to acquire?
- If yes, how would the public utility's possible condemnation and use of one of the other properties benefit the public, as compared to the property that the public utility is attempting to condemn?

http://docs.cpuc.ca.gov/Word_Pdf/sb_177/manual_sb177.pdf

Jacumba region Rare & Endangered Plants

Within the USGS Jacumba Topo Quad, Southeast San Diego County

open	save	scientific	common	family	CNPS
	<input type="checkbox"/>	<u>Astragalus douglasii</u> var. <u>perstrictus</u>	Jacumba milk-vetch	Fabaceae	List 1B.2
	<input type="checkbox"/>	<u>Ayenia compacta</u> 	California ayenia	Sterculiaceae	List 2.3
	<input type="checkbox"/>	<u>Berberis fremontii</u> 	Fremont barberry	Berberidaceae	List 3
	<input type="checkbox"/>	<u>Deinandra floribunda</u>	Tecate tarplant	Asteraceae	List 1B.2
	<input type="checkbox"/>	<u>Dieteria asteroides</u> var. <u>lagunensis</u>	Mount Laguna aster	Asteraceae	List 2.1
	<input type="checkbox"/>	<u>Geraea viscida</u> 	sticky geraea	Asteraceae	List 2.3
	<input type="checkbox"/>	<u>Hulsea mexicana</u>	Mexican hulsea	Asteraceae	List 2.3
	<input type="checkbox"/>	<u>Ipomopsis tenuifolia</u> 	slender-leaved ipomopsis	Polemoniaceae	List 2.3
	<input type="checkbox"/>	<u>Linanthus bellus</u> 	desert beauty	Polemoniaceae	List 2.3
	<input type="checkbox"/>	<u>Lotus haydonii</u> 	pygmy lotus	Fabaceae	List 1B.3
	<input type="checkbox"/>	<u>Lupinus excubitus</u> var. <u>medius</u> 	Mountain Springs bush lupine	Fabaceae	List 1B.3
	<input type="checkbox"/>	<u>Senecio aphanactis</u> 	chaparral ragwort	Asteraceae	List 2.2
	<input type="checkbox"/>	<u>Tetracoccus dioicus</u> 	Parry's tetracoccus	Euphorbiaceae	List 1B.2

ECOLOGICAL REPORT

scientific	family	life form	blooming	communities	elevation	CNPS
<u><i>Astragalus douglasii</i></u> var. <u><i>perstrictus</i></u>	Fabaceae	perennial herb	Apr-Jun	<ul style="list-style-type: none"> •Chaparral (Chprl) •Cismontane woodland (CmWld) •Pinyon and juniper woodland (PjWld) •Riparian scrub (RpScr) •Valley and foothill grassland (VFGrs)/rocky 	900 - 1370 meters	List 1B.2
<u><i>Ayenia compacta</i></u>	Sterculiaceae	perennial herb	Mar-Apr	<ul style="list-style-type: none"> •Mojavean desert scrub (MDSscr) •Sonoran desert scrub (SDScr)/rocky 	150 - 1095 meters	List 2.3
<u><i>Berberis fremontii</i></u>	Berberidaceae	perennial evergreen shrub	Apr-Jun	<ul style="list-style-type: none"> •Chaparral (Chprl) •Joshua tree "woodland" (JTWld) •Pinyon and juniper woodland (PjWld)/rocky 	840 - 1850 meters	List 3
<u><i>Deinandra floribunda</i></u>	Asteraceae	annual herb	Aug-Oct	<ul style="list-style-type: none"> •Chaparral (Chprl) •Coastal scrub (CoScr) 	70 - 1220 meters	List 1B.2
<u><i>Dieteria asteroides</i></u> var. <u><i>lagunensis</i></u>	Asteraceae	perennial herb	Jul-Aug	<ul style="list-style-type: none"> •Cismontane woodland (CmWld) •Lower montane coniferous forest (LCFRs) 	800 - 2400 meters	List 2.1
<u><i>Geraea viscida</i></u>	Asteraceae	perennial herb	May-Jun	<ul style="list-style-type: none"> •Chaparral (Chprl)(often in disturbed areas) 	450 - 1700 meters	List 2.3
<u><i>Hulsea mexicana</i></u>	Asteraceae	annual/perennial herb	Apr-Jun	<ul style="list-style-type: none"> •Chaparral (Chprl)(volcanic, often on burns or disturbed areas) 	1200 - 1200 meters	List 2.3
<u><i>Ipomopsis tenuifolia</i></u>	Polemoniaceae	perennial herb	Mar-May	<ul style="list-style-type: none"> •Chaparral (Chprl) •Pinyon and juniper woodland (PjWld) •Sonoran desert scrub (SDScr)/gravelly or rocky 	100 - 1200 meters	List 2.3
<u><i>Linanthus bellus</i></u>	Polemoniaceae	annual herb	Apr-May	<ul style="list-style-type: none"> •Chaparral (Chprl)(sandy) 	1000 - 1400 meters	List 2.3
<u><i>Lotus haydonii</i></u>	Fabaceae	perennial herb	Jan-Jun	<ul style="list-style-type: none"> •Pinyon and juniper woodland (PjWld) •Sonoran desert 	520 - 1200 meters	List 1B.3

				scrub (SDScr)/rocky		
<u>Lupinus excubitus</u> var. <u>medius</u>	Fabaceae	perennial shrub	Mar-May	•Pinyon and juniper woodland (PJWld) •Sonoran desert scrub (SDScr)	425 - 1370 meters	List 1B.3
<u>Senecio aphanactis</u>	Asteraceae	annual herb	Jan-Apr	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Coastal scrub (CoScr)/sometimes alkaline	15 - 800 meters	List 2.2
<u>Tetracoccus dioicus</u>	Euphorbiaceae	perennial deciduous shrub	Apr-May	•Chaparral (Chprl) •Coastal scrub (CoScr)	165 - 1000 meters	List 1B.2

<http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi/BrowseAZ?name=quad>

<http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi/Search?search=%2b%22Jacumba%20%28007B%29%203211662%22>

Jacumba milk-vetch, *Astragalus douglasii* var. *perstrictus*, Rare, threatened or endangered, in Southeast San Diego County and slightly into Baja, and within the Jacumba Topo Quad



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California *Ayenia compacta*, Rare, threatened or endangered, in Eastern San Diego County and within the Jacumba Topo Quad

http://calphotos.berkeley.edu/cgi/img_query?where-anno=1&rel-taxon=eq&where-taxon=Ayenia+compacta





Freemont barberry, *Berberis fremontii*, rare evergreen shrub, in Jacumba and Live Oak Springs Topo Quad areas





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Tecate tarplant, *Deinandra floribunda*, *Hemizonia floribunda*, Rare, threatened or endangered annual herb, in Southeastern San Diego County and within the Jacumba Topo Quad



Mount Laguna aster, *Dieteria asteroides* var. *lagunensis*, Rare, threatened or endangered perennial herb, in Southeastern San Diego County and only within the Jacumba and Mount Laguna Topo Quads, no California images available, (Arizona var.)

<http://seinet.asu.edu/seinet/symbiota/taxa/taxaprofile.php?taxon=Dieteria%20asteroides&cl=Seven%20Springs>







Stickey geraea, *Geraea viscid*, Rare, threatened or endangered perennial herb, in Southeastern San Diego County, and within the Jacumba Quad





(next) **Mexican hulsea**, *Hulsea Mexicana*, Rare, annual/perennial herb, in Southeastern San Diego County, and within the Jacumba Quad, no California images available, (*Hulsea californica*; San Diego Alpinegold shown).



Slender-leaved ipomopsis, *Ipomopsis tenuifolia*, Rare, perennial herb, in Southeastern San Diego County, and only within the Jacumba Quad/area







Desert beauty, *Linanthus bellus*, Rare, annual herb, SE San Diego, Jacumba Quad



Sunrise A.06-08-010

Pigmy lotus, *Lotus haydonii*, Rare, threatened or endangered perennial herb, in Eastern San Diego County, and within the Jacumba Quad



Mountain Springs bush lupine, *Lupinus excubitus* var. *medius*, Rare, threatened or endangered shrub, in Southeastern San Diego County, and within the Jacumba Quad





Chaparral ragwort, *Senecio aphanactis*, Rare, threatened or endangered annual herb, in California, and in Southeastern San Diego County within the Jacumba Quad



Parry's tetracoccus, *Tetracoccus dioicus*, Rare, threatened or endangered deciduous shrub, primarily in San Diego County and within the Jacumba Quad





East San Diego County MSCP Plan - Species List

www.co.san-diego.ca.us/dplu/mscp/ec_species.html

California Environmental Quality Act (CEQA) Omissions

California's Environmental Quality Act contains at least 28 requirements to protect the environment and provide alternatives to damages. Apparently, no new overhead high power line can fulfill these requirements, since projects such as the Sunrise Powerlink are extraordinarily and needlessly damaging. Fortunately, there are extremely low impact, higher capacity, safer and lower cost alternatives available which we have described in great detail, that do not interfere with full compliance or the intentions and requirements of the California Environmental Quality Act. Further, we are asserting that the Sunrise Powerlink as proposed is in direct violation of all 28 sections of the California Environmental Quality Act as listed below and emphasized in larger blue type.

PUBLIC RESOURCES CODE, SECTION 21000-21106

California Environmental Quality Act (CEQA)

Chapter 1: Policy, § 21000. Legislative intent

The Legislature finds and declares as follows:

- (a) **The maintenance of a quality environment for the people of this state now and in the future is a matter of statewide concern.**
- (b) **It is necessary to provide a high-quality environment that at all times is healthful and pleasing to the senses and intellect of man.**

(c) There is a need to understand the relationship between the maintenance of high-quality ecological systems and the general welfare of the people of the state, including their enjoyment of the natural resources of the state.

(d) The capacity of the environment is limited, and it is the intent of the Legislature that the government of the state take immediate steps to identify any critical thresholds for the health and safety of the people of the state and take all coordinated actions necessary to prevent such thresholds being reached.

(e) Every citizen has a responsibility to contribute to the preservation and enhancement of the environment.

(f) The interrelationship of policies and practices in the management of natural resources and waste disposal requires systematic and concerted efforts by public and private interests to enhance environmental quality and to control environmental pollution.

(g) It is the intent of the Legislature that all agencies of the state government which regulate activities of private individuals, corporations, and public agencies which are found to affect the quality of the environment, shall regulate such activities so that major consideration is given to preventing environmental damage, while providing a decent home and satisfying living environment for every Californian.

§ 21001. Additional legislative intent

The Legislature further finds and declares that it is the policy of the state to:

(a) Develop and maintain a high-quality environment now and in the future, and take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state.

(b) Take all action necessary to provide the people of this state with clean air and water, enjoyment of aesthetic, natural, scenic, and historic environmental qualities, and freedom from excessive noise.

(c) Prevent the elimination of fish or wildlife species due to man's activities, insure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities and examples of the major periods of California history.

(d) Ensure that the long-term protection of the environment, consistent with the provision of a decent home and suitable living environment for every Californian, shall be the guiding criterion in public decisions.

(e) Create and maintain conditions under which man and nature can exist in productive harmony to fulfill the social and economic requirements of present and future generations.

(f) Require governmental agencies at all levels to develop standards and procedures necessary to protect environmental quality.

(g) Require governmental agencies at all levels to consider qualitative factors as well as economic and technical factors and long-term benefits and costs, in addition to short-term benefits and costs and to consider alternatives to proposed actions affecting the environment.

§ 21001.1. Review of public agency projects

The Legislature further finds and declares that it is the policy of the state that projects to be carried out by public agencies be subject to the same level of review and consideration under this division as that of private projects required to be approved by public agencies.

§ 21002. Approval of projects; feasible alternative or mitigation measures

The Legislature finds and declares that **it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects**, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects. The Legislature further finds and declares that in the event specific economic, social, or other conditions make infeasible such

project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof.

§ 21002.1. Use of environmental impact reports; policy

In order to achieve the objectives set forth in Section

21002, the Legislature hereby finds and declares that the following policy shall apply to the use of environmental impact reports prepared pursuant to this division:

(a) The purpose of an environmental impact report is **to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided.**

(b) **Each public agency shall mitigate or avoid the significant effects on the environment of projects** that it carries out or approves whenever it is feasible to do so.

(e) To provide more meaningful public disclosure, reduce the time and cost required to prepare an environmental impact report, and **focus on potentially significant effects on the environment of a proposed project**, lead agencies shall, in accordance with Section 21100, focus the discussion in the environmental impact report on those potential effects on the environment of a proposed project which the lead agency has determined are or may be significant. Lead agencies may limit discussion on other effects to a brief explanation as to why those effects are not potentially significant.

§ 21003. Planning and environmental review procedures; documents; reports; data base; administration of process

The Legislature further finds and declares that it is the policy of the state that:

(c) Environmental impact reports omit unnecessary descriptions of projects and **emphasize feasible mitigation measures and feasible alternatives to projects.**

(d) Information developed in individual environmental impact reports be incorporated into a data base which can be used to reduce delay and duplication in preparation of subsequent environmental impact reports.

§ 21003.1. Environmental effects of projects; comments from public and public agencies to lead agencies; availability of information

The Legislature further finds and declares it is the policy of the state that:

(a) **Comments from the public and public agencies on the environmental effects of a project shall be made to lead agencies as soon as possible in the review of environmental documents, including, but not limited to, draft environmental impact reports and negative declarations, in order to allow the lead agencies to identify, at the earliest possible time in the environmental review process, potential significant effects of a project, alternatives, and mitigation measures which would substantially reduce the effects.**

(b) **Information relevant to the significant effects of a project, alternatives, and mitigation measures which substantially reduce the effects shall be made available as soon as possible by lead agencies, other public agencies, and interested persons and organizations.**

(c) Nothing in subdivisions (a) or (b) reduces or otherwise limits public review or comment periods currently prescribed either by statute or in guidelines prepared and adopted pursuant to Section 21083 for environmental documents, including, but not limited to, draft environmental impact reports and negative declarations.

§ 21005. Information disclosure provisions; noncompliance; presumption; findings

(a) The Legislature finds and declares that it is the policy of the state that **noncompliance with the information disclosure provisions of this division which precludes relevant information from being presented to the public agency, or noncompliance with substantive requirements of this division, may constitute a prejudicial abuse of discretion** within the meaning of Sections 21168 and 21168.5, regardless of whether a different outcome would have resulted if the public agency had complied with those provisions.

(b) It is the intent of the Legislature that, in undertaking judicial review pursuant to Sections 21168 and 21168.5, courts shall continue to follow the established principle that there is no presumption that error is prejudicial.

(c) It is further the intent of the Legislature that **any court, which finds, or, in the process of reviewing a previous court finding, finds, that a public agency has taken an action without compliance with**

this division, shall specifically address each of the alleged grounds for noncompliance.

§ 21060.5. Environment

"Environment" means the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, objects of historic or aesthetic significance.

§ 21083. Office of Planning and Research; preparation, development and review of Guidelines

(a) The Office of Planning and Research shall prepare and develop proposed guidelines for the implementation of this division by public agencies. The guidelines shall include objectives and criteria for the orderly evaluation of projects and the preparation of environmental impact reports and negative declarations in a manner consistent with this division.

(b) The guidelines shall specifically include criteria for public agencies to follow in determining whether or not a proposed project may have a "significant effect on the environment." The criteria shall require a finding that a project may have a "significant effect on the environment" if one or more of the following conditions exist:

(1) **A proposed project has the potential to degrade the quality of the environment, curtail the range of the environment, or to achieve short-term, to the disadvantage of long-term, environmental goals.**

(2) **The possible effects of a project are individually limited but cumulatively considerable. As used in this paragraph, "cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.**

(3) **The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.**

(c) The guidelines shall include procedures for determining the lead agency pursuant to Section 21165.

(d) The guidelines shall include criteria for public agencies to use in determining when a **proposed project is of sufficient statewide, regional, or area wide environmental**

significance that a draft environmental impact report, a proposed negative declaration, or a proposed mitigated negative declaration shall be submitted to appropriate state agencies, through the State Clearinghouse, for review and comment prior to completion of the environmental impact report, negative declaration, or mitigated negative declaration.

(e) The Office of Planning and Research shall develop and prepare the proposed guidelines as soon as possible and shall transmit them immediately to the Secretary of the Resources Agency. The Secretary of the Resources Agency shall certify and adopt the guidelines pursuant to Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code, which shall become effective upon the filing thereof. However, the guidelines shall not be adopted without compliance with Sections 11346.4, 11346.5, and 11346.8 of the Government Code.

(f) The Office of Planning and Research shall, at least once every two years, review the guidelines adopted pursuant to this section and shall recommend proposed changes or amendments to the Secretary of the Resources Agency. The Secretary of the Resources Agency shall certify and adopt guidelines, and any amendments thereto, at least once every two years, pursuant to Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code, which shall become effective upon the filing thereof. However, guidelines may not be adopted or amended without compliance with Sections 11346.4, 11346.5, and 11346.8 of the Government Code.

§ 21083.1. Legislative intent; interpretation by courts

It is the intent of the Legislature that courts, consistent with generally accepted rules of statutory interpretation, shall not interpret this division or the state guidelines adopted pursuant to Section 21083 in a manner which imposes procedural or substantive requirements beyond those explicitly stated in this division or in the state guidelines.

§ 21083.2. Archaeological resources; determination of effect of project; EIR or negative declaration; mitigation measures

(a) As part of the determination made pursuant to Section 21080.1, the lead agency shall determine whether the project may have a significant effect on archaeological resources. If the lead agency determines that the project may have a significant effect on unique archaeological resources, the environmental impact report shall address the issue of those resources. An environmental impact report, if otherwise necessary, shall not address the issue of nonunique archaeological resources. A negative declaration shall be issued with respect to a project if, but for the issue of nonunique archaeological resources, the negative declaration would be otherwise issued.

(b) If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. Examples of that treatment, in no order of preference, may include, but are not limited to, any of the following:

- (1) Planning construction to avoid archaeological sites.
- (2) Deeding archaeological sites into permanent conservation easements.
- (3) Capping or covering archaeological sites with a layer of soil before building on the sites.
- (4) Planning parks, greenspace, or other open space to incorporate archaeological sites.

(c) To the extent that unique archaeological resources are not preserved in place or not left in an undisturbed state, mitigation measures shall be required as provided in this subdivision. The project applicant shall provide a guarantee to the lead agency to pay one-half the estimated cost of mitigating the significant effects of the project on unique archaeological resources. In determining payment, the lead agency shall give due consideration to the in-kind value of project design or expenditures that are intended to permit any or all archaeological resources or California Native American culturally significant sites to be preserved in place or left in an undisturbed state. When a final decision is made to carry out or approve the project, the lead agency shall, if necessary, reduce the specified mitigation measures to those which can be funded with the money guaranteed by the project applicant plus the money voluntarily guaranteed by any other person or persons for those mitigation purposes. In order to allow time for interested persons to provide the funding guarantee referred to in this subdivision, a final decision to carry out or approve a project shall not occur sooner than 60 days after completion of the recommended special environmental impact report required by this section.

(d) Excavation as mitigation shall be restricted to those parts of the unique archaeological resource that would be damaged or destroyed by the project. Excavation as mitigation shall not be required for a unique archaeological resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the resource, if this determination is documented in the environmental impact report.

(k) Any additional costs to any local agency as a result of complying with this section with respect to a project of other than a public agency shall be borne by the project applicant.

(I) Nothing in this section is intended to affect or modify the requirements of Section 21084 or 21084.1.

§ 21106. Request of funds to protect environment

All state agencies, boards, and commissions shall request in their budgets the funds necessary to protect the environment in relation to problems caused by their activities.

The Sunrise Powerlink application violates 28 different sections of the CEQA and causes massive damages without any demonstrable need; while avoiding nondamaging alternatives such as underground DC power lines beneath highways, which do not inflict damages to the environment, property, community or our health, while providing for an increase in capacity, efficiency, safety and reliability, as well as decreasing costs.

<http://www.ceres.ca.gov/ceqa/stat/>

http://www.ceres.ca.gov/ceqa/stat/Ch_1.html

Unfortunately, the agenda of campaign contributors is rarely well thought out, all that influence dedicated to creating a disastrous future, including an inadequate plan to deliver a few percent of San Diego's sustainable energy need. Nevertheless, thousands of people responded to the environmental threat of over 22 square miles of bulldozing and environmental destruction no matter what route is chosen. While we agree with

SDGE that the Southern Route would be more environmentally destructive, we are far more puzzled why SDGE does not immediately adopt a completely underground route and install a 3,000 to 5,000 megawatt cable pair, or cables with a 3,000 square millimeter copper cross section, that would allow say 1,000 megawatt upgrades at the converter stations, starting at 1,000 or 2,000 megawatts with incrementing by 1,000 megawatts up to perhaps 3,000 megawatts or more; then going to the other side of the road to drop in another 5,000 megawatt cable pair as needed, 5 feet underground, which is not a particularly difficult trench to dig with large rotary trenching equipment, which should be much faster to install than building 700 huge pylons with roads to mountain tops for huge cranes to erect 700 of the 170 foot tall tower monstrosities, to suspend arrays of cables 450 feet above our valleys. This is a genuine nightmare to practically anyone who lives in eastern San Diego County, and everybody in the city of San Diego, except of course the thousands of Chamber of Commerce leaders who would bulldoze the planet if it could earn them \$50. Based on my experience they are not about to consider a nondestructive alternative, even if they were sure it would cost them less, and that may be the only predicament in this entire CPUC review process, -- intentional destructive behavior. Well we might notice that it is against the law, and consider enforcing the laws of California.

The less politically connected majority have long understood the duplicity of the political and the judicial process, and are consciously reduced to begging for some consideration at CPUC meetings, to protect California's eternal treasures. Apparently the people know that they are at the mercy of decision makers who can create arbitrary and massive impacts on the region, without even understanding the alternatives available. No commissioner, not even the governor has understood the issues and told the people that they would not put up with the environmental destruction proposed by SDGE. We have only suggested that there are more significant issues at stake to SDGE, the people and the State than political control, that SDGE and the State may not

have had the patience to consider, involving: capacity projections, environmental damages, full restitution and non damaging alternatives that define the resolution of a needless 3 way struggle between energy, the environment and regulation, or between industry, the people and the government, that can ultimately be damaging to everyone, which fortunately can be reconsidered from an engineering and economic perspective so that each of the 3 factions fully succeed, which we have tried to illustrate in as clearly a way as possible, which may well have been ignored, in favor of sustaining existing conflicts, in spite of researching and documenting a resolution process that benefits SDGE, by offering all the cable capacity that could ever be wanted while saving Sempra many billions of dollars, at the same time fully protecting the environment by completely avoiding any new routes for overhead high power lines, while offering the governor and the CPUC potential accolades for resolving, perhaps everyone's fundamental needs.

Further, everything being said here can be easily proven or discarded based on known or measurable engineering and economic data, all of which we can statistically analyze in greater detail based on much more field work, which has not been provided by SDGE or the CPUC. The history of politics has been to avoid engineering and economic solutions to our energy requirements, and to start phenomenally costly wars to influence the price of oil which we never needed, and now have proven we can't even control, because our inept billionaires want to maintain a strangle hold on our labor, our resources, our decisions and our lives. You might think that their extraordinary failures over the past 3 decades might have lead to some questioning their failed strategies, which has left America with over \$90 trillion in debt. However, being the heirs to power and media influence, their decisions are still considered infallible or ultimately unquestionable by the mass audience. Unfortunately, the CPUC review process has not been allowed to go nearly far enough to allow the analysis and resolution of any major issue, leaving the matter of power line capacity, future damages,

full restitution, environmental and property destruction, all as matters of conjecture to be arbitrarily and perhaps brutally decided.

The future energy needs of the state, the environment, property and health are not irrelevant details that can be arbitrarily decided without information by people who may not care about such issues, without adequate engineering, economic and environmental data, without measuring all the obvious categories of damages, the economic losses, full property replacement requirements and restitution. Unfortunately, several of the most significant issues were completely avoided by the CPUC review, although certainly mentioned by a few people at public hearings. Perhaps the deadlines and procedures governed the content of the review process, instead of resolving the significant technological, economic and environmental issues. Apparently, an abbreviated review could allow for a damaging decision. No matter where the overhead Powerlink is placed, there will be massive and completely needless damages. The problem is with the technology. The overhead Powerlink offers far more damages than benefits, saves nothing for SDGE, offers no political benefit for the governor, and doesn't even minimally serve the future of sustainable generation facilities in Imperial County. While we have a difficult time understanding how this could not be extraordinarily obvious to anyone who has spent even a little time considering the fundamental issues, we have of course noticed the extraordinarily limited range of possibilities being considered in the CPUC review process, with a limited appreciation of the parameters for each option, while the government of China has been traveling to Sweden to examine its own UHVDC options, in order to deliver 6,400 megawatts at +/-800 kV on each power line for at least 18 powerlinks, plus an additional 10 power lines with up to 3,000 megawatts capacity, all at considerably lower costs than the systems being proposed by SDGE (see Appendix F for details). Our efforts also include a strategy for future expandability which could eliminate any significant need to repeat such review complexities, without inhibiting future expansion options, or impacting the environment.

Supporting the decision making process

“If there is a better route it will come out of the regulatory process.” Sempra Energy, Donald Felsing 2007

“Well there is a better route, it’s underground and it costs less. However, it’s not clear that the regulatory process will provide for its consideration.”

Apparently, Sempra/SDGE is ultimately asking for an effective solution that provides for capacity with minimal damages. That is an engineering problem, a community and an environmental problem that can be resolved. Fortunately, the underground alternatives can provide 10,000 to 20,000 megawatts along any of 7 existing east to west highways across San Diego County (see Appendix F) without damaging the environment, impacting private property, becoming a fire ignition source (via carbon conductance), without the ionization of pollutants, EMF emissions or becoming a future medical liability.

The introduction of long distance underground DC high power lines, that can protect the environment and thousands of private property owners, can also create significant public relations benefit for SDGE and the power industry, as well as save billions in installation costs, property damages, fire and medical liabilities, eliminate the need to install two additional Powerlinks at a cost of over \$3 billion, and protect a significant part of California's \$90 billion per year recreation and tourism industry. Further, if the Sunrise Powerlink could avoid the devastation of our conservancy in this CPUC iteration, then future overhead power lines could still cause massive damages during the next effort to build another power line. Because the power line requirements for San Diego County can easily exceed 20 times the proposed Powerlink, just to accommodate a transition from our extraordinary oil dependency through the plug-in hybrid vehicles. Something that China is now addressing with greater attention to the power line technology and the sustainable alternatives, which we have also been documenting with additional consideration to low impact transmission technology and environmental protection.

We have offered no disagreement with SDG&E's right to build a power line of any capacity, our concern is that little to no considerations is being offered to avoid needless damages to the environment, viewshed, private property and recreational uses, as well as being offered no requirement to support the full restoration and the full economic restitution for all damages and losses, based on equivalent replacement costs, at the time of the replacement, including all personal time, expenses and legal expenditures.

However, we also realize that if an engineering alternative such as underground power lines is not considered that there will be exclusively destructive impacts.

At the public hearings in Anza Borrego (May 12, 2008) one of the speakers mentioned that contributions of \$50,000 were provided by Sempra Energy to California governor's causes.² While such influences have been extremely well known, naturally it's relevant in this

² **(After governor touts Sunrise, his cause gets Sempra cash, By Bruce V. Bigelow , UNION-TRIBUNE STAFF WRITER, May 10, 2008)**

Sempra Energy gave \$50,000 to one of Gov. Arnold Schwarzenegger's pet causes last month, just days after the governor complained publicly about activists impeding the Sunrise Powerlink proposed by San Diego Gas & Electric Co.

A SDG&E spokeswoman said yesterday there is "no connection" between Schwarzenegger's comments and the corporate donation, which was first reported by *The Sacramento Bee*.

Environmental activists who oppose the powerline argue that it's unjustified and SDG&E is using renewable energy in a "bait and switch" play to win support for Sunrise. They contend the powerline is instead intended primarily to carry electricity from gas-fired power plants along the border, which would take advantage of abundant new supplies from Sempra's liquefied natural gas terminal in Baja California.

Schwarzenegger complained during an April 18 appearance at Yale University that SDG&E's project faces opposition "even though it would replace an old carbon-based power plant."

Environmental activists and Democrats exhibit a "kind of schizophrenic behavior," the governor said, because "they say that we want renewable energy but we don't want you to put it anywhere, we don't want you to use it."

Six days later, the California governor made similar comments on "The Tonight Show With Jay Leno."

"You want to go and create more solar plants in the desert, and then they don't let you build, sometimes, the transmission lines to get it on the grid," Schwarzenegger said.

"There's no better way to get the love of the governor than to give money to his pet cause," said Michael Shames, executive director of San Diego's Utility Consumers' Action Network, and a Sunrise opponent.

case to understand how that influence could needlessly devastate our conservancy and projects, and the efforts and survival of thousands of others. Beginning on January 18, 2005 governor Schwarzenegger appointed 4 the 5 current Public Utility Commissioners and apparently has significantly influenced the public utility decision process; the only question remaining is, if large scale and needless damages affecting ¼ to ½ million acres in Southern California will be tolerated, all without even saving money for SDGE.

Perhaps, the Commission can see that transmission capacity can be increased, without damaging the environment, private or public interests, while benefiting Sempra Energy and SDGE and averting many billions in damages. Some of the approaches we proposed could be implemented through any one of over a dozen different approaches to underground DC power lines, or by increasing the capacity of the existing power line routes from 1,000 megawatts in increments to 60,000 megawatts, or by supporting local generation. If paying money to the governor were the deciding factor on whether many billions of dollars in damages are caused to California, then please inform the people how much they need to contribute to the governor to protect the state from damages and everybody could save thousands of hours of wasted effort. It may be possible that the people could, and in fact do, match or exceed any individual contributions. But of course the people know that they could be condemned and accused of bribery or massive public crimes for their efforts to protect California and its irreplaceable environmental treasures, while large contributors would remain sanctioned. Another well known chief of police and mayor of Los Angeles mentioned that there is absolutely no difference between a bribe and a campaign contribution, nor is the understanding or the effect any different.³ It's extraordinary how

As for the timing of Sempra's donation after Schwarzenegger's comments, Shames said, "You don't have to be Oliver Stone to see the connection. It's pretty obvious."

<http://www.signonsandiego.com/news/business/20080510-9999-1b10sunrise.html>

³ The flood of special-interest dollars into politics doesn't only purchase access, it buys elections. Candidates who please those with money are better financed, and better-financed candidates are winning candidates. In last year's Senate races, the better-funded candidate won 85 percent of the time. In House races, the figure was 95.6 percent. Even if most

these needless conflicts are perpetuated by archaic political and judicial machinery, ultimately with no benefit to anyone, only damages. If a solution is available, which accommodates the interests of the people, the environment and SDGE, why would such a solution be opposed, unless the objective is simply to cause damages to the environment and the people? After listening to hundreds of points of view on this matter other explanations are not apparent, fundamentally because all the nondamaging alternatives for power lines that exist are so far being ignored and not implemented, which leaves only the damaging strategies, in clear violation of California laws. (see appendix B)

Standard of Review, Burden of Proof Not Met

California Public Utilities Commission General Order 131-D provides that no electric public utility shall construct transmission line facilities above 200 kV without the Commission finding that said facilities are necessary to "promote the safety, health, comfort, and convenience of the public, and that they are required by the public convenience and necessity." In D-06-11-018 this Commission confirmed it's "long held finding that the applicant carries the burden of proof in a certification proceeding."

<http://docs.cpuc.ca.gov/published/Graphics/589.PDF>

CPUC Actions Regarding EMFs

A [PUC decision](#) on January 27, 2006, affirmed the Commission's November 1993 decision on low-cost/no-cost, policy to mitigate EMF exposure for new utility transmission and substation projects. As a measure of low-cost mitigation, we continue to use the benchmark of 4% of transmission and substation project costs for EMF mitigation, and combine linked transmission and substation projects in the calculation of this 4% benchmark.⁴

<http://www.cpuc.ca.gov/PUC/energy/electric/Environment/ElectroMagnetic+Fields/action.htm>

people want clean air, as long as companies can buy politicians for less than it costs to retool their polluting plants, clean air will have to wait. [Sierra, Nov-Dec, 2001](#) by Carl Pope
http://findarticles.com/p/articles/mi_m1525/is_6_86/ai_79747920

⁴ There are seven measures that were ordered in the PUC's November 1993 decision and affirmed in the January 27, 2006 decision are:

- No-cost and low-cost steps to reduce EMF levels: When regulated utilities design new projects or upgrade existing facilities, approximately 4% of the project's budget may be used for reducing EMFs. The PUC did not set specific reduction levels for EMFs . It was

How is the \$56,000,000 set aside dedicated to reducing EMF, (4% of the project cost) going to be spent? The proposed Sunrise Powerlink does not address or resolve any high levels of EMF radiation or the ionization of pollutants which are known carcinogenic hazards that can cause thousands of fatalities on a long term basis, and which can be fully

inappropriate to set a specific numerical standard until a scientific basis for doing so exists.

- New designs to reduce EMF levels: The PUC's Advisory and Compliance Division and Safety Division held workshops for utilities to develop EMF design guidelines for new and rebuilt facilities. The guidelines incorporate alternative sites, increase the size of rights-of-way, place facilities underground, and use other suggested methods for reducing EMF levels at transmission, distribution and substation facilities
- Measurement of EMFs: Uniform residential and workplace EMF measurement programs were also designed in the workshops; they are available to utilities and their customers. Other utilities are also encouraged to use them.
- Education and Research: The PUC wants the public and groups having a financial or basic interest in EMFs to become involved in developing education and research programs; these programs are established and managed by the DHS. PUC-regulated utilities and municipal utilities use ratepayer funds to pay for their share of development costs for the following programs:
 - EMF Education: This \$1.49 million program will provide credible, meaningful, consistent, and timely EMF information to electric utility customers, employees, and the public. DHS will coordinate a uniform EMF education program to supplement, but not duplicate, those that most electric utilities already have. Utilities without programs should implement one as soon as possible.
 - EMF Research: A \$5.6 million four-year non-experimental research program will be directed by DHS. This program will provide utility participation in state, national, and international research to be pursued to the extent that it benefits ratepayers.
 - Other Research: Utilities are authorized to contribute to federal experimental research conducted under the National Energy Policy Act of 1992.

eliminated through underground DC lines, at no additional cost (as is required by the CPUC).

We also can only hope that the resolution of the least damaging alternative does not mean primarily addressing procedural issues, which can or have effectively excluded consideration of far less damaging and less costly alternatives. Our approach has been to identify protective solutions and hardware configurations that could have a wide range of economic, technological and health benefits and eliminate damages altogether, including offering some protection for the entire region, both for Imperial and San Diego Counties. Fortunately, these approaches can also be implemented at lower cost than the proposed Powerlink, saving SDGE hundreds of millions to billions of dollars, depending on future capacity requirements, in addition to eliminating over \$20 billion in short term damages to the region. Like thousands of others we could be severely damaged with massive economic, environmental, health and personal losses. Consequently, we have provided our research and documentation to describe several nondamaging alternatives that could also be economically viable for SDGE, as well as benefit the entire region.

Thousands of people in California have spent 10's of thousands of hours addressing the damages that would be caused by the Sunrise Powerlink, and while we have expended considerable efforts to address what could turn out to be needless conflicts between SDGE, the environment and residents, like many others we can only do our best to contribute to finding a functional solution to assist the expressed interests of the people, with full consideration for the environment, as well as the transmission interests of SDGE.

An economic analysis of all significant impacts and damages has not been provided by the CPUC review process, nor has the restitution for damages been considered.

We encourage greater consideration of the damages that are inherit with overhead power lines, pylon foundations, including access roads, turn around and work clearings, EMF cable radiation and the ionization of pollutants, medical hazards, aircraft and fire risks, including carbon smoke conductance and fire ignition, fire clearings of wilderness, full habitat restoration costs over several decades, household, farm and ranch displacement, paleontological values, threatened species and equivalent wilderness replacement costs, losses of viewshed and protected wilderness areas. As later illustrated the assessment of viewshed losses can be measured on a gradient ranging from directly below the high power lines at 100% loss, to zero loss at 1.5 miles based on the visibility or rate of motion of the viewer. Habitat damages can measured based on restoration costs typically over greater than a 40 year period in arid region habitats, where plant diversity and soil conditions will determine survivability, including water supplementation or well drilling, automated irrigation, botanical expertise, regional plant biodiversity, on-site propagation capabilities, indigenous tree transplantation, electronic moisture monitoring, security, transportation, labor, etc. Property losses can be evaluated based on full and equivalent property acquisition costs, construction and moving costs, in addition to depreciation and business losses, present and future loss projections. Medical costs, related transportation, relocation costs, losses of labor and life can also be evaluated, in addition to regional fire losses and losses to viewshed, and a portion of the losses to California's \$90 billion per year recreation and tourism industry.

Each overhead AC high power line route will impact thousands or people, properties, homes, businesses, conservancies and recreational areas, with a complex economic analysis which is an integral part of any construction process, with or without utilizing eminent domain, unfortunately such an analysis has not been provided for the Sunrise Powerlink. We have initiated a preliminary effort to identify and address the economic losses, which we estimated to be at a minimum of 20 billion dollars for short to medium term losses, which can be more precisely defined through more detailed field studies, to allow a more accurate evaluation and a valid comparison between alternatives, which unfortunately has been avoided. **The overall cost of the proposed Sunrise Powerlink is**

not \$1.4 billion as commonly described, but undoubtedly well over \$21 billion, on a short term basis, if all economic damages are considered, and far higher on a long term basis.

Significant economic data which measures damages has not been collected by the CPUC, and the result is that massive environmental, property and personal losses are not being evaluated in the CPUC review process. Other than our own economic summary, we noticed a tendency to measure some issues with great precision, because the data was collected and made available, while ignoring vastly more costly environmental and property damages because the parties were unfamiliar with how to fully restore habitat, or how many decades it would take, what the experience requirements would be, or the property replacement cost issues, or the long-term property losses than would be incurred, based on the evaluations of buyers with actual knowledge of EMF and ionization cancer hazards, losses of viewshed as a portion of California's environment, all information which we disclosed as a part of our economic review process. Naturally, a considerably more detailed economic analysis could be provided and documented with additional time, an effort we noticed was being avoided by the CPUC, on the basis of inadequate research data or limited methods. Well, the research methods and data are available, just being avoided, just as the nondamaging power line alternatives are being avoided. Consequently, the impact and damages that the Sunrise Powerlink would cause cannot be fully evaluated.

What may be overlooked by the CPUC and SDGE is that the nondamaging, environmentally considerate technologies could offer a more efficient, higher capacity, lower-cost transmission technology, without the property, fire and medical liabilities, all of which could financially damage SDGE. Unfortunately, that has not been of any detectable concern by SDGE or the CPUC. If the CPUC authorizes massive damages by restricting the

review process in order to defend or allow for arbitrary or damaging decisions, then the state would apparently be a participant in, complicit with and liable for the damages. Clearly, needlessly bulldozing 22 square miles of wilderness to reach pylons, to create parking for crews, cranes, leveling work areas and making habitat or fire clearings under power lines, which we have observed under SDGE's Southwest Powerlink is extraordinarily destructive, very costly and a counterproductive strategy both for SDGE and the CPUC, which doesn't even address future capacity requirements in any effective way.

While we are not opposed to power lines when no significant damages are being inflicted and when full restitution and replacement costs provide for all damages, which is a more affordable option, that could save several billion dollars if the capacity and damage issues were considered first. A more thorough technical review could offer significant benefits for the people, the environment, as well as SDGE. Fortunately, inventing a new technology is not required, proven hardware that can offer a nondamaging and less costly alternative is available for review in Europe, Australia and China, all of which would be less costly and vastly less damaging than an overhead 500 kV AC high power line. Consequently, the application for a new overhead power line route should not be approved, which does not need to exclude a large scale, incremental upgrade in capacity on an existing route. While the reconsideration of an approach costs time and effort. However, it is not the obligation of the people to sacrifice many billions of dollars of their property, their businesses and homes, nor endure fire and cancer risks because of a lack of consideration by someone in an office, far away with many other concerns.

Compensation is not exclusive to a narrow strip of land to radiate high powered electro-magnetic fields, ionize pollutants and promote cancers over homes, wilderness, research facilities, camping and recreational areas, nor does it evaluate the damages resulting from the bulldoze roads, work areas and fire clearings. Replacement costs for equivalent habitat, paleontology and geologic monuments, research and recreational capabilities include an area of the Conservancy that would exceed 800 acres based on the restoration and replacement cost of the Reserve at over \$50 per square foot, adjusted for

future total inflation plus interest at 1% per month above total inflation, secured by the real property, assets and facilities of the utility company, Sempra Energy and its descendants or beneficiaries. It is considered a contractual obligation by any party for the specified value or greater, to fully provide for all damages and Just Compensation for this project and property based on the actual and full geologic, botanical, paleontological, research, facility and replacement value of this reserve, should SDGE, Sempra, individuals, subcontractors or any other entity enter the property and commence to cause damages, engage in construction, electrification or impede any uses of the Anthropological Reserve held or acquired by CBH.

The parties proposing or causing damages have been fully informed of the range of losses being imposed or inflicted in advance, as well as lower cost alternatives including underground power line installation, apparently without intention to consider or implement any nondamaging alternatives, consequently SDGE, Sempra Energy and others are assuming full responsibility for all categories of damages they cause. Ignoring responsibilities and alternatives to causing damages is a public admission of intention to disregard nondamaging options or an intention to cause damages. No party can claim ignorance, or disregard nondamaging alternatives, which do not impede high capacity power lines, then claim they have no choice but to cause major damages. Given a devastating approach and a nondamaging solution which overall costs less, if the lower cost nondamaging approach is rejected, then there is also no doubt that the intention is to cause damages, and any claim of ignorance or any political or technological lapse would be untrue, now, during construction or during a subsequent trial required to review the information provided here. If the utility company is allowed to cause many times more damages than they are willing to reimburse, then providing full restitution for all damages caused, based on full and equivalent replacement costs for the Anthropological Reserve

becomes the alternative, including full relocation and acquisition costs for a conservancy with equivalent urban access, security, surrounding wilderness, intact habitat and diversity, unobstructed views, aesthetics, geologic monuments, paleontological artifacts, watershed, water and energy resources, architectural, camping and recreational capabilities.

If a nondamaging, higher capacity, safer and lower cost alternative were now considered for the Powerlink by SDGE, no doubt SDGE, the governor and the administration could take credit for being environmentally considerate and continue with their plans to expand renewable generation and transmission capabilities. That's all we are suggesting. So why is there such animosity and resistance to a nondamaging alternative?

Review process procedural alternatives, Community review as a real time process

While a sense of openness was offered, the resolution process does not include any open evaluation of the issues. The concern may be that any valid criticism may need to be addressed, which is time consuming, or that change means inconvenience, based on a procedural interpretation of a review process, consequently a closed and extremely difficult to question system appears to have been implemented, which is not connected to a particularly accessible review process. Our concern is that an inaccessible CPUC review process could lead to a needlessly high-impact and destructive power line that would require

many additional civil review efforts, because the CPUC review avoided addressing and resolving the essential environmental, engineering, property, health, economic and legal issues. The judicial review models in place are highly confined or exclusionary systems that can readily perpetuate damages, because they are not based on developing a full understanding of the issues, they are based on completing procedures, which are not available to provide time or access to develop a complete review of the critical issues, nor considering alternatives to damages. Expedience and damages appear to be protected by any procedural process, which may be interpreted as more efficient by legal specialists. Whenever expediency became the guiding principle in industry, the result was frequently a rash of litigation, or wrongful death cases, perhaps followed by efforts to improve the system or amend safety procedures. **If there were a data base to identify and catalog damages, that could be verified, which would balance the full set of damages against the cost of nondamaging alternatives, and calculate the cost of the full restitution of all losses, based on verifiable data retrieved through the web from thousands of informed participants, then the review process would have a chance of not only collecting but accurately digesting the information in real-time and arriving at a cost analysis that could lead to beneficial and nondamaging conclusion.** Alternatively, if the current review process allowed people to present relevant environmental, engineering, restoration, health and property damage information, which is incorporated into a review document that is continually updated and evaluated until the issues were fully addressed, and significantly the sum of all that economic and damage data were allowed to determine or block any arbitrary conclusion, that did not take all the facts into account, then there would be a connection between the information which was available and the conclusion, and an opportunity to provide for a mutually beneficial project. Unfortunately, taking the short-cut and allowing massive damages to be caused is almost always thought of as being more efficient, or at least more satisfying to anyone maintaining an incapable but orderly process, something that even a Chinese dictatorship has had the capacity to avoid in their current review of electrical transmission systems. (see: Appendix F) So we can only hope that the commissioners will not support the extraordinarily damaging approaches that have not been provided in the application in

terms of environmental losses, restoration expenses, equivalent replacement costs, home, business, health and personal losses; along with offering consideration for lower cost, nondamaging technological alternatives, which have not been reviewed by the CPUC, which we have introduced through several documents, in addition to testimony at a number of CPUC hearings. (see: Appendix F and G attachment and www.undergroundpower.us)

If the critical issues could be addressed in the CPUC review process and evaluated in terms of the full cost and capacity for the power line and environmental restoration costs that would be required, as well as full mitigation and equivalent property replacement costs, including habitat, viewshed, facilities, capabilities, time and labor requirements, health, medical costs and losses of life, fire risks and liabilities; then a mutually beneficial solution would be comparatively easy to develop, without much need for conflict. However, procedural complexity which excludes information or provides protection for damages can defeat the interests of each party, or provide a victory based on needless destruction. Unfortunately, when critical engineering and environmental or property issues are addressed as adversarial or procedural issues by trial attorneys, apparently it becomes less likely that an effective, nondamaging solution will ever be found, while only the costs will increase dramatically. Mediation or a process of consensus, based on verifiable research and analysis that could allow anyone to identify a specific problem or source of damage, evaluate the related costs, the functional alternatives and the cost of each solution could dramatically help resolve any problem and could address resolution in a more productive manner, than through an adversarial or procedural dispute.

Existing review procedures, although thankfully are less formal judicial procedures, are still based on formalities designed to address or support adversarial conflicts, that tend to avoid a more cooperative process of review or understanding, which still makes it difficult for anyone to offer information related to environmental, engineering, property or personal losses, or review the research and damages being observed as evidence from recent submissions or even past projects, nor are summarized or accumulated information being

organized in a data base to create an accurate overview of the damages and losses, the costs of restoration and restitution. Consequently, 10's of thousands of hours can be spent developing conjectures that can be manipulated by legal professionals to draw any conclusion from not fully researched or not completely assembled facts, which leaves any judge, jury or commissioner in a position of making an arbitrary decision, with selective attention to selected facts, which can readily avoid consideration to the devastating losses to be endured by thousands of home, business and property owners, along with our priceless environmental landscapes, as well as our health and survival, all without any significant restitution, which incidentally is absolutely not in the economic interests of Sempra Energy, since there are better engineering and environmental power line alternatives which can benefit both the community and SDGE. Perhaps few legal professionals see much personal benefit in considering Alternative Dispute Resolution, or more significantly see little benefit in addressing the technical issues related to wilderness restoration, power line engineering or constitutional law or case law requirements in order to address full restitution and equivalent property replacement. Nevertheless, the Chinese government has had the foresight to implement the newer technology that we described in order to lower their costs, increase their transmission capacity for sustainable power and at the same time reduce environmental damages by 85% compared to the Sunrise Powerlink, undoubtedly their awareness, public utility procedures and environmental consideration is more advanced.

We greatly appreciate the CPUC's efforts to hold open public hearings, because an entire community had an opportunity to contribute to a solution. Unfortunately, the solutions suggested by the public, while frequently based on very significant and demonstrable

information, have not been reviewed nor offered an opportunity to be considered and developed into an alternative that could be compared on environmental, engineering or economic terms, and were simply disposed of, cataloged and forgotten, even though they were based on effective, low budget solutions which have been proven. Without a process of research and understanding it may be inevitable that adversarial procedures and attorneys will arbitrarily choose an approach with extraordinarily damaging or tragic consequences, based on a drive to bankrupt their adversaries through compulsory or forceful means. Of course the unlikely possibility of an educated jury could offer the consideration and understanding needed to address needless damages that are perpetrated through force. The alternative may simply amount to a list of objectives and costs provided by the applicant, followed by a list of problems or damages and alternatives, with the costs of each based on full and complete restoration costs and full and equivalent replacement costs, provided to those damaged. When the research and data is collected, it could be summarized in a data base and displayed as a spreadsheet, comparing the cost of all the impacts, damages and solutions, which could make finding a solution not something founded on conjecture. However, such an analysis does not need to be a determinative solution. For example, if solution B is the least costly, while solution C costs a little more, but is less damaging or offers greater capacity, then an environmental group or a utility company can pay the difference and retain solution C; or the difference can be supported by mitigation or restitution for other damages. Fortunately, what we are now seeing is that the least costly and the higher capacity power line technology is also the least damaging, particularly if implemented in a way that minimizes needless impacts and allows for incremental capacity increases.

We can trust that the governor, the Commissioners, Sempra Energy, the Sierra Club and millions of people who want to protect their wilderness or incomes, will all want to make the appropriate decision for themselves. Unfortunately, the information required to understand how to accomplish this without causing needless damages or violating environmental laws has not been offered any resolution in the review process. In other words nobody knows what the evaluation process means, except perhaps the decision makers, because they can override any form of consideration. Perhaps there is real

apprehension to allowing consideration for any nondamaging approach, which is essential to any mutually beneficial solution. It has been our intention to provide some information regarding economical, high capacity, nondamaging approaches that have been proven worldwide since the 1950's, and as early as Edison's first power plant placed in operation during the Spring of 1881, where the original DC power lines are still intact underground. We can only provide research and information, and accept any rational criticism or questions, with the only issue remaining being a willingness to consider any of the nondamaging alternatives provided through the CPUC, which is apparently the overwhelming intention of the people, while the urban chambers of commerce, who have been described as not representing their memberships, apparently are not concerned with who gets damaged or why, since they are in high population density areas that will not be affected by pylons, and since they have completely ignored all the damages that would devastate others and the environment, and since they have opposed nondamaging alternatives.

Wouldn't the parties demanding needless damages want to be fully responsible for the full replacement costs and all losses they inflict, for all the resulting litigation and collection expenses? I realize that if I inflicted needless damages that I would be charged, prosecuted and required to pay massive penalties on top of paying for everyone's losses. Apparently, there are there 2 different standards of justice for 2 different groups, where over \$20 billion in short term damages will be ignored if caused by one of the groups, and prosecuted if caused by the other group. So the State simply needs to publish those legal standards and exemptions, or point out where they are already published, which may well occur through its decision process, which we await with many thousands of others who could be needlessly damaged. If all the information provided through the CPUC process cannot be digested, perhaps civil litigation will ultimately be required to address the massive losses to our environment, property, business and lives, along with our State and constitutional obligations required to protect and provide "just compensation" perhaps then on the basis of fraud or death, without a statute of limitations on those claims. Unfortunately, the review procedures have not been able to address the unnecessary nature of the conflict, by evading consideration of nondamaging alternatives, which it may defend by condemning the development of nondamaging alternatives, or simply through the exclusion or denial of

nondamaging alternatives, or by defending needless and massive environmental damages. However, neither SDGE nor the CPUC can claim that they have encouraged or provided a review process to accommodate nondamaging power line alternatives, nor claim that they were unaware of these alternatives, since we presented these alternatives to all parties here and repeatedly in public CPUC hearings since February of 2007.

While we may all have portions of answers and solutions in our own data base or minds related to these issues, and may have presented that information as required or as invited, unfortunately there is no apparent process available for assimilation. People who do not understand the data or have no interest in finding a solution, cannot organize, present or intelligibly describe the information that is available to them, which can lead to a very confused interpretation, or as we have seen can lead to an intentionally erroneous collection of data, which could no doubt lead to an arbitrary or destructive decision; which perhaps may be intentional based on someone's prior experiences, because even damaging decisions are not made in a vacuum, undoubtedly hundreds of hours will have been spent arriving at any mutually beneficial or extremely damaging conclusion. So we might conclude that if massive environmental damages were not decided against and that nondamaging alternatives were fundamentally of no interest, then needless damages were intended or allowed, which would address the issue of responsibility and liability.

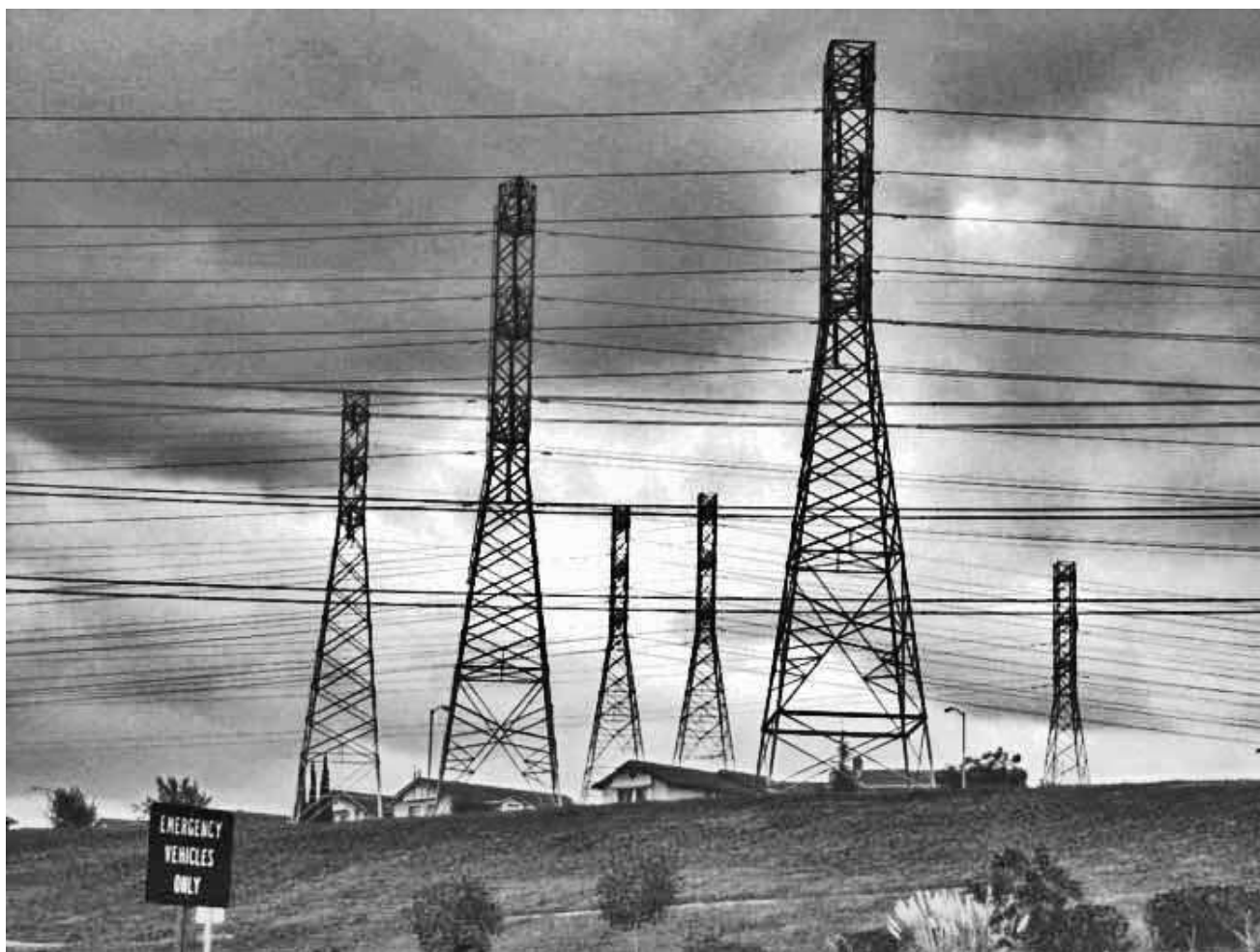
Please continue to carefully review the issues. If a damaging overhead route is approved, then the victims along with all communities will need to organize a legal defense to prevent needless damages and confiscations. If the CPUC cares to implement a cooperative and inclusive review process that gathers data from all affected parties and participants, we can help develop web data base to directly collect and analyze data in real-time from all participants. If there are any questions regarding any issue mentioned please write or call.



Cost and Damage Summary over 30 years: Overhead vs. Underground, to the year 2040

Year 2040	Overhead AC	Underground DC
Capacity (megawatts)	1,000	1,000 to 5,000
Capacity upgradable (MW)	Not upgradable	2,000 to 10,000
Construction cost	\$1,400,000,000	\$870,000,000
Upgrade capacity cost	Complete new system	Upgrade the converters
Maintenance (30/50 year cycles)	\$1 billion	0
Security costs	High and not securable	low
Impacts:		
Hazards fire/aircraft	Over \$2.5 billion in 2007	0
EMF & Ionization cancer deaths	300 to 600 lives/year SD	0
EMF & Ionization cancer losses	Over \$1.5 billion/year SD	0
Property damages, suburban	64,000 acres	0
Property losses, suburban	\$320 billion	0
Property damages, rural	128,000 acres	0
Property losses, rural	\$64 billion	0
Property damages, wilderness	384,000 acres	0
Property losses, wilderness	\$192 billion	0
Viewshed damages	144,000 acres	0
Viewshed losses	\$7.2 billion	0

Recreation & tourism damages	\$450 million per year	0
Homes impacted, short term	100's to 1,000's	0
Businesses impacted	100's	0
New roads cleared & bulldozed	9 to 14 thousand acres	0
Habitat restoration costs	\$30.5 billion	0
Property replacement costs	\$15 billion	0
Total 30 year medium term cost:	\$648 billion	Less than \$1 billion



We have reached our environmental limits and are now just observing irreversible damages

Cost and Damage Summary over 30 years: Overhead vs. Underground (with footnotes)

To year 2040 ⁵	Overhead AC	Underground DC
Capacity (megawatts)	1,000	1,000 to 5,000 ⁶
Capacity upgradable (MW)	Not provided	2,000 to 10,000
Construction cost	\$1,400,000,000	\$870,000,000 ⁷

⁵ **Lifespan:** Since very limited capacity power lines installed about 100 years ago are still being used, although the limits are being pushed when air conditioners are turned on, we can expect that new, vastly higher capacity power lines will be in use 200 or more years from now, with regular maintenance and cable replacement. So 30 years of use could be considered near the beginning of a systems life cycle, unless of course scientists and the media decide that the EMF and ionization health risks are too great, in which case the big Powerlinks and local power lines may have to be dismantled.

⁶ **Cables:** Underground DC power lines with a minimum or 3,000 square millimeter copper cross-section and 6.2 inch outer diameter operating at +/-300 kV (using XLPE extruded cables), or +/- 600 kV (using PPL, Paper Polypropylene Laminate), or +/- 800 kV (using SCFF, Self Contained Fluid Filled).



⁷ **Underground DC** power line construction data from the BritNed project providing 1,300 megawatts of capacity over 161.5 miles, including burial under the sea floor. *Note:* Since there are many project specific variables involving costly components which may be individually configured, the power industry is not prepared to provide cost information without engineering effort. Consequently, data may be obtained from industry publications describing similar projects, or hardware component costs may be estimated by equipment manufacturers.

Upgrade capacity cost	Complete new system	Upgrade the converters
Maintenance (30/50 year cycles)	\$1 billion	0
Security costs	High and not securable	low
Impacts: ⁸		
Hazards fire/aircraft	Over \$2.5 billion in 2007	0
EMF & Ionization cancer deaths	300 to 600 lives/year SD	0
EMF & Ionization cancer losses ⁹	Over \$1.5 billion/year SD	0

⁸ **Impact categories:** Since data regarding full environmental and property impacts were not collected or provided by SDGE or the CPUC, several models were developed to measure economic degradation and losses, along the 150 mile power line route, where pylons and cables may extend from 160 to over 450 feet above the ground, with EMF, ionization and viewshed degradation extending well beyond the power line route, devaluing well over half a million (576,000) acres along the route. The assignment of more precision numbers for losses related to EMF and ionization (based on uninformed vs. medically informed buyers), viewshed, property degradation, devaluation, equivalent property replacement, the value of current, planned and projected uses, can be provided with field work and research for individual parcels, by area and category as required. Excluding categories of use and development, ignoring medical awareness or equivalent property replacement values will only serve to distort or diminish the value of the long term losses being endured by home and property owners.

⁹ **Litigation:** This is an estimate of \$2 billion over 30 years just for litigation costs for the hundreds of lives lost every year, accounting for just 4.4% of all the cases occurring in San Diego County totaling \$45 billion over 30 years, or an estimated \$2 billion for cases related to the Sunrise Powerlink during 3 decades, and does not include large claims, state or class action awards for damages due to cancers for the entire region, resulting from high power line EMF exposures and the ionization of pollutants. Since the population could more than double for San Diego County during the next 30 years, and estimate of 18,000 deaths due to power line hazards over 30 years could be low, or at least 800 deaths attributed to the Sunrise Powerlink alone, at approximately \$2.5 million each, amounts to perhaps a conservative \$2 billion over 30 years, which could accelerate as research and biological detection methods improve.

Property damages, suburban	64,000 acres	0
Property losses, suburban ¹⁰	\$320 billion	0
Property damages, rural	128,000 acres	0
Property losses, rural ¹¹	\$64 billion	0

¹⁰ **Suburban:** A 1 mile linear gradient where zero distance to the power line provides 100% degradation and at 1 mile provides 0% degradation, based on rolling terrain with suburban development in the region where noticeability is not high, while the effects of EMF and ionization may be significant, as well as property value impacts, depending on medical awareness, (which cannot be depended on as an excuse to avoid calculating economic impact). Including an area estimated to increase to 1/3 of the Powerlink or 50 linear miles, or encompassing 200 square miles or 128,000 acres, at 5 houses per acre = ultimately 640,000 houses averaging \$1 million each, (and alternatively at least an equivalent value in business properties) = over \$640 billion, and after extracting damages an ultimate degradation area of 64,000 acres and value or loss of over \$320 billion.

¹¹ **Rural:** A 2 mile gradient on rural terrain, ranch properties and custom homes where noticeability and objectionability to pylons and hot cables is moderately high although acreage may be lower in price than suburban areas, or potentially higher depending on wilderness assets, geologic features, full and equivalent replacement values. (Based on a linear degradation gradient, with losses, noticeability and objectionability that decline based on distance). Including an area estimated to increase to 1/3 of the Powerlink route or 50 linear miles, or encompassing 400 square miles or 256,000 acres, at an average value of 10% of developed land (\$5M) or at least \$500 thousand per acre (a value that is suppressed since calculations are based on income, not potential value or replaceability, of which the total valuation is only 10% of it's developed value, which is not much more than the interest one would pay during one year on a suburban property when paying a mortgage), which equals \$128 billion for the region, with a degradation distributed over half or 128,000 acres with a value or loss of \$64 billion.

Note: Long term calculations cannot be based on current trends, which randomly fluctuate and are replaced by longer term fundamentals, based on measurable values. While property values have over the long term increased, so has inflation, taxes, insurance, maintenance and legal expenses, consequently may not represent a net gain in value.

Property damages, wilderness	384,000 acres	0
Property losses, wilderness ¹²	\$192 billion	0
Viewshed damages	144,000 acres	0
Viewshed losses ¹³	\$7.2 billion	0

¹² **Wilderness:** A 12 mile gradient where wilderness reserves or where visual expanses are unimpeded and 170 tall pylons stand in stark relief against their natural setting or wilderness area, or where the primary purpose of a property is its wilderness dedication, consequently is an issue of high sensitivity, objectionability and noticeability. Including an area estimated to decrease to 1/3 of the Powerlink route or 50 linear miles, or 1,200 square miles or 768,000 acres, replaceable at 1/10 the price of developed land, which apparently may not be a possibility, since state and federal wilderness reserves are typically irreplaceable reserves and national assets that in a significant way belongs to the nature that molded its mountains and spawned life, which only includes humanity. So if replaceability were an actual possibility then 768,000 acres at \$500 thousand per acre (1/10 developed value) would be \$384 billion, with the degradation of 384,000 acres with an estimated value or loss of \$192 billion.

Where irreplaceable geologic formations, expansive views and native habitat cannot be replaced through local equivalent acquisitions then the value would be based on full geologic and habitat replacement costs of at least \$25 to \$75 per square foot or \$1.1 to \$3.3 million per acre, which can take years to plan, engineer and implement, and decades of botanical maintenance, electronic monitoring and automated irrigation to complete restoration efforts.

¹³ **Viewshed** losses could range from low or nonexistent at 1.5 miles away from the power lines to not less than 1% of the value of suburban developed land (\$5M/acre) or \$50 thousand per acre, with an average visibility gradient of 1.5 miles, covering 450 square miles or 288,000 acres, or a degradation of 144,000 acres estimated evaluation of \$7.2 billion, (this is a loss to the public not individual residents, owners or conservancies).

Recreation & tourism damages ¹⁴	\$450 million per year	0
Homes impacted, short term	100's to 1,000's	0
Businesses impacted	100's	0
New roads cleared & bulldozed ¹⁵	9 to 14 thousand acres	0
Habitat restoration costs ¹⁶	\$30.5 billion	0

¹⁴ **Recreation and tourism:** San Diego's recreation and tourism share as a percentage of California's \$90 billion per year industry, is not less than 10%, with a population in excess of 3 million, in a state of over 37 million, with the natural resources of the region representing not less than 25% of the asset, or 1/40 of \$90 billion or \$2.25 billion, a 10% degradation of the resource could provide more than a \$225 million loss, since it could damage the image of San Diego's \$9 billion share by 5% or have an impact of a \$450 million loss, depending on whether it took 1 or more Powerlinks to achieve the 5% level in perceptual degradation. The people of San Diego made it known to the CPUC that they were horrified to see their precious wilderness, whether to the north or through the south of San Diego County degraded for a power line, even if there were no alternatives available. However, there are lower cost alternatives that can fully protect the irreplaceable wilderness of San Diego County.

¹⁵ **Clearings:** Based on observations of 500 kV overhead AC power line road building requirements, construction clearings, off-road extensions and fire clearings.

¹⁶ **Habitat restoration:** With over 9,000 acres of clearing for new roads, construction work space, plus off road vehicle extensions damaging over 14,000 acres, the restoration of habitat and geology in arid regions requiring water, fencing, plant propagation and monitoring over at least 4 decades, costing over \$50 per square foot, for 609.84 million square feet, or \$30.5 billion.

Restoration costs in remote areas, including photographic documentation, electronic sensing and botanical monitoring for a minimum of four decades, plant propagation, transportation, automated irrigation, geological structure reconstruction and monument restoration, ranging from at least 25 and 75 dollars per square foot or until fully completed, plus insurance, legal and collection costs to insure the continuation of restoration.

Property replacement costs ¹⁷	\$15 billion	0
Total 30 year medium term cost: ¹⁸	\$648 billion	Less than \$1 billion

Electrical demand has largely been driven through the promotion of population growth. Apparently, demand will continue to grow based on the cost of oil along with the conversion to electric vehicles and renewable resources. Older less innovative industries have continued to support rapid population growth as their source of their industrial expansion, without significant regard for global resource pressures or large scale damages to humanity, nor the environment and massive economic losses that are being inflicted. None of these impacts exist in isolation, nor do the corporate decisions that create a context of pressure and desperation, or compel a specific solution into existence. However, when a highly damaging plan is proposed and the review process avoids considering those damages, then the result can be the beginning of extreme and unnecessary losses, while lower cost nondamaging alternatives are avoided, which does not benefit the people, the environment, the independent generators or SDGE. We are simply encouraging a review process that carefully considers all the related issues, all the damages and all the alternatives that will be reflected in any decision, instead of maintaining and adversarial dispute that ultimately only extends a conflict, while intentionally avoiding any understanding, cooperative or beneficial solutions.

¹⁷ **Property replacement costs:** Where at least 10% of the rural areas and the entirety of dedicated wilderness regions are rare and do not have equivalent replacement resources that can be acquired at anything close to commercial valuations, conventional commercial appraisals will fail to provide for the acquisition of equivalent property on over 30,000 acres, at least doubling acquisition costs, adding at least an additional 10% of the value of developed property (\$500 thousand) or \$15 billion.

¹⁸ **Summary total** includes costs over 30 years for: Construction cost \$1.4 billion, + Maintenance cable and pylon replacement 30/50 year cycle \$1 billion, + Hazard/fire insurance \$1 billion, + EMF/ionization cancer damages (excluding litigation and award costs) and 4.4% of the \$45 billion estimated total, \$2 billion, + Suburban property losses \$320 billion, + Rural property losses \$64 billion, + Wilderness property losses/devaluations \$192 billion, + Viewshed losses \$7.2 billion, + Recreational losses \$13.5 billion, + Habitat restoration over 4 decades \$30.5 billion, + Equivalent property replacement \$15 billion, Three decade total = \$647.6 billion.

California auto fatalities by county, proportional and equivalent to the ionization of air borne pollutants and cancer fatalities

Counties over 1 million	Victims Killed in California Collisions													
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Alameda	122	125	106	100	106	107	91	88	90	114	111	112	113	103
ContraCosta	*	*	*	*	*	*	*	*	*	*	*	*	*	67
Los Angeles	1077	950	911	969	972	863	764	624	684	749	768	728	816	750
Orange	217	203	198	185	176	197	175	157	175	164	207	193	215	215
Riverside	290	239	241	294	274	278	253	269	231	266	262	312	303	321
Sacramento	132	135	151	129	124	113	152	88	117	117	147	143	150	131
SBernardino	336	339	367	349	357	333	312	300	297	318	334	334	357	409
San Diego	373	296	300	273	258	259	229	250	284	260	290	299	290	294
Santa Clara	106	108	110	86	113	119	110	100	103	103	113	112	93	89

<http://cacrash.org/YRCOUNTY.HTM>

Equivalences do not need to be provided for fatalities resulting from the ionization of pollutants or for EMF. Epidemiological studies provided in Europe do not need to be extrapolated to equivalent levels and fatalities for the U.S.; California can provide its own studies if it were considered appropriate or not offensive to industries that would otherwise be paid to place power lines underground, as if that were somehow a disadvantage to the power industry.



<http://cacrash.org/f9105.html#fyear>

When automotive and industrial air born pollutants flow past overhead power lines they are ionized or charged, allowing the charged pollutants to attach to our fragile lung membranes, damaging local cells and occasionally promoting cancers at a rate equivalent to auto fatalities, based on studies done in the UK (which we previously described).



Lung cancer image

A [PUC decision](#) on January 27, 2006, affirmed the Commission's November 1993 decision on low-cost/no-cost, policy to mitigate EMF exposure for new utility transmission and substation projects. As a measure of low-cost mitigation, we continue to use the benchmark of 4% of transmission and substation project costs for EMF mitigation, and combine linked transmission and substation projects in the calculation of this 4% benchmark. In addition, the Commission adopted rules and policies to improve utility design guidelines for reducing EMF, and called for a utility workshop to implement these policies and standardize design guidelines. <http://www.cpuc.ca.gov/PUC/energy/electric/Environment/ElectroMagnetic+Fields/action.htm>

In order that utilities may proceed with a workshop, we define and adopt EMF mitigation policies and rules which address underground transmission lines, application of the 4% mitigation benchmark to EMF priority classes, EMF mitigation modeling techniques, and the locations for measuring EMF mitigation. We also direct utilities to initiate standardized field reduction techniques and develop a table to reflect EMF reduction measures taken or rejected. http://docs.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/53181.htm

See: **Appendix F, Overhead power lines & health effects**

Testimony by: Magda Havas, Ph.D.



Lung cancer cells

Since the molecular mechanism has not been absolutely proven to everyone's satisfaction, DHS and the CPUC are denying existing medical evidence from Europe showing a 70% increase in leukemia rates for those whose address was within 650 feet of comparatively low power lines, at the time of their birth, based on a study of 29,081 children (which we previously described), while the CPUC claims that this is an issue for the Department of Health Services (DHS), while it has already proceeded and complied with industry interests and authorized 500,000 volt overhead power lines with very potent EMF levels, while disregarding thousands of deaths per year, as if this were somehow beneficial to the power industry, who in any case would be paid to place power lines underground, as well as make a profit, since underground costs less, all without having anyone's lives placed at risk or having anyone's family income depleted in order to provide safety relative to EMF and ionization.

There are several factors at work which make absolute proof difficult, so far. However, there is adequate evidence to associate power line fields with serious health risks and fatal cancers. Unfortunately, the highest forms of proof are required to satisfy the power industry as if the power industry was going to be destitute if any EMF safety were ever offered anyone, so ultimately the state is taking the position of expanding EMF and ionization hazards, undoubtedly as a result of contributions according to the major newspapers of San Diego and Los Angeles. **Strangely, no one seems to notice that a long distance power line which is underground, costs less and doesn't emit EMF, consequently is required to be underground. See: A PUC decision on January 27, 2006 regarding 4% mitigation, described earlier in: "CPUC Actions Regarding EMFs". Apparently to ignore this requirement is a violation of CPUC rulings, as well as a serious health risk to the people of California.**

1. When practically everybody lives in electromagnetic fields and is exposed to ionization, it's difficult to find a local population that's not exposed to EMF, so developing a clear cut epidemiological study is practically impossible, or the differences between the studied population and the control group will always be small, and going to a South Pacific island is not going to provide an equivalent control group.
2. Further, it is not the purpose of an epidemiological study to define, or even prove a biological mechanism. If people are dying in auto accidents you don't need a team of molecular biologists trying to figure out how cell disruption causes death.
3. Electron transport mechanisms and AC field interference has only been studied briefly.
4. Nanotechnology is now only beginning to develop sensitive voltage measurement devices that can enter a cell.

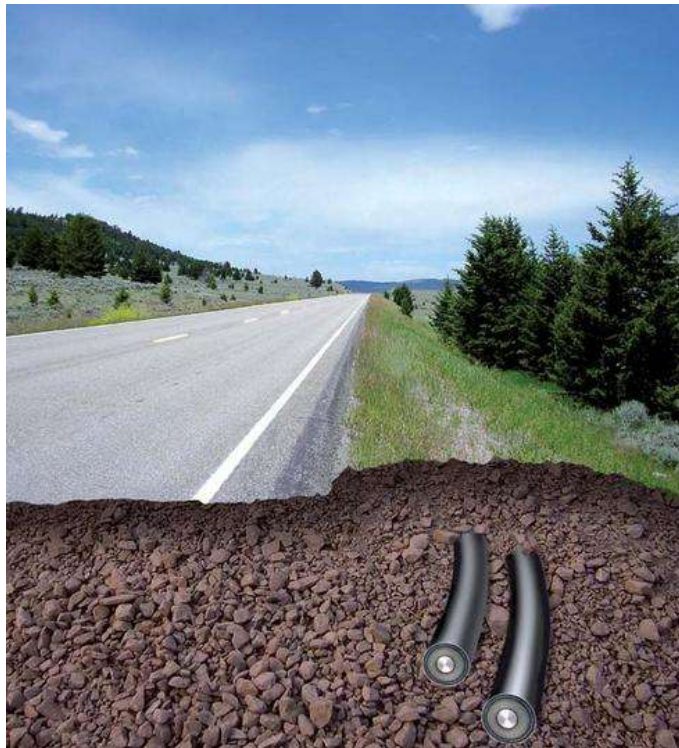
5. There is already ample evidence to link oscillating fields to intracellular electron flow disruptions which inhibit cellular repair processes, which we reported in our May 9th paper to the CPUC.
6. We don't have the time or resources to create an elaborate experiment to upset the power industry, since we are working on trying to inhibit large scale environmental destruction by the power industry.
7. 200 years ago it was obvious to anyone who started smoking that it was unhealthy, while they were choking, so did we have to wait an extra 200 years for doctors, attorneys and juries to all agree that smoking was hazardous? In the case of high power lines most people are being compelled to endure EMF and ionization, until the electric industry is convinced that everybody knows their product is hazardous.
8. Since there are people living beyond 100 who regularly smoke, we could say that there's inadequate evidence that smoking is hazardous. However, attorneys might classify any plausible deniability statements from the tobacco industry, which we occasionally see enclosed in our electric bills as an effort to protect and sustain a fraud, or participation in mass murder, or an attempt to evade prosecution, a conspiracy, a public deception, etc. but since everyone has teams of attorneys, many thousands more would succumb to cancer before some inadequate judgment were decided on.
9. We already have a low cost way of eliminating practically all EMF and ionization of pollutant exposures, by placing power lines underground, particularly high powered EMF generators such as this overhead AC Powerlinks.

Biological effects of non-ionizing electromagnetic energy: A critical review of the reports by the US National Research Council and the US National Institute of Environmental Health Sciences as they relate to the broad realm of EMF bioeffects

By Magda Havas (See the following link for a review of numerous scientific research studies:)

<http://www.powerlinefacts.com/Canadian%20Review%20of%20NCR%20and%20NIEHS%20studies.pdf>

If the link doesn't work a Google search using the following keywords should retrieve this 2 megabyte 89 page research paper: powerlinefacts havas pdf



Underground power lines are a low to no cost approach to eliminating EMF & ionization hazards.

**“It’s only going to get worse.
We’re too dependent on hydrocarbons.”**

George Bush, June 9th 2008, ABC News 6pm (Honest, but 40 years too late.)

There’s no way America’s and the world’s extraordinary dependency on oil can be converted into an extreme dependency on electricity, particularly when electricity includes transportation demands, and when that energy is generated with liquefied natural gas/LNG, without the price of LNG skyrocketing. The rapid conversion to renewable energy is critical to California’s economic survival, among many other issues that are being ignored or opposed by our leaders.

**Sempra’s Energia Costa Azul LNG terminal storage tanks, Baja Mexico
May 2007 construction photo:**



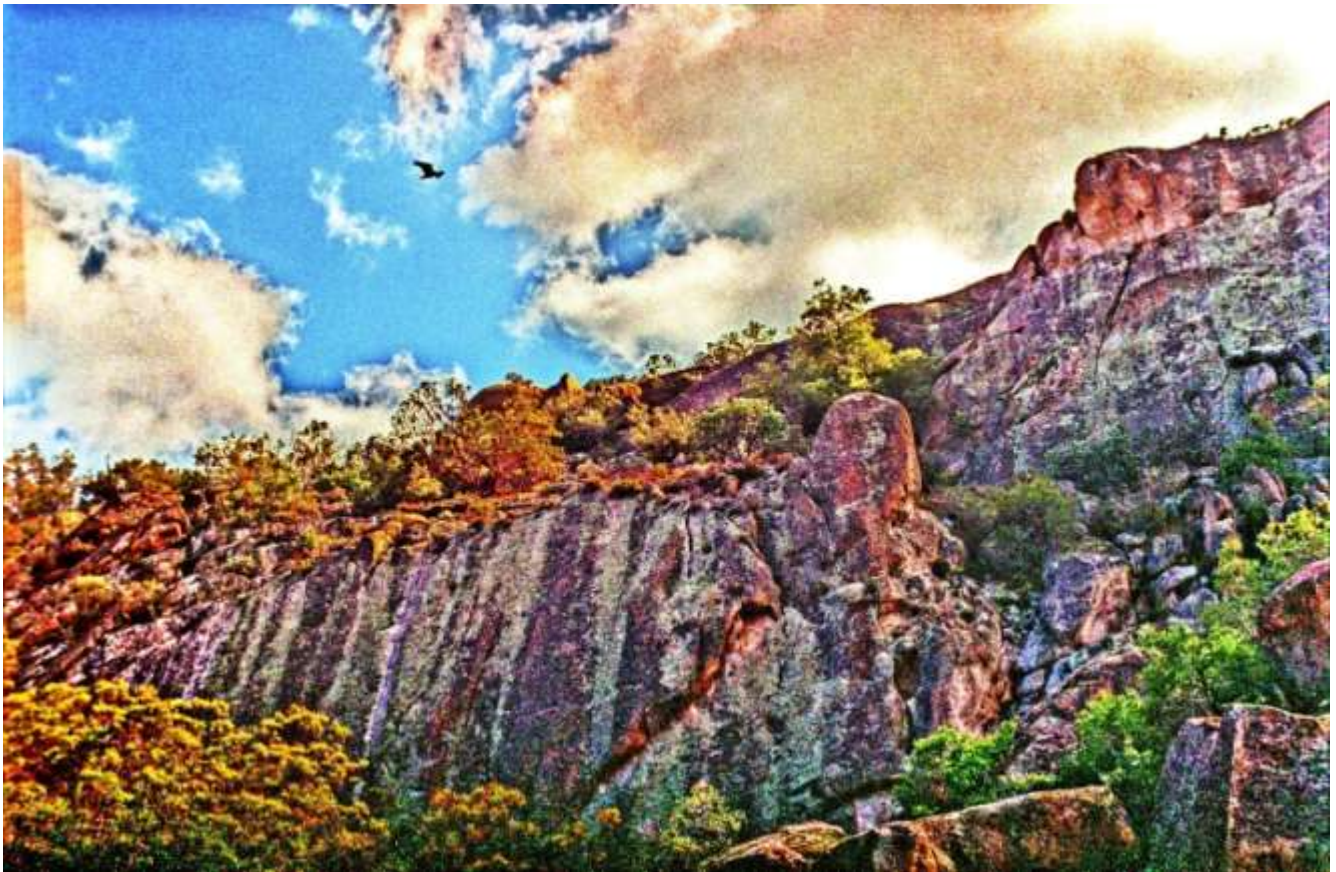
Sempra’s Energia Costa Azul LNG terminal storage tanks 14 miles north of Ensenada Mexico.

Conservancy images



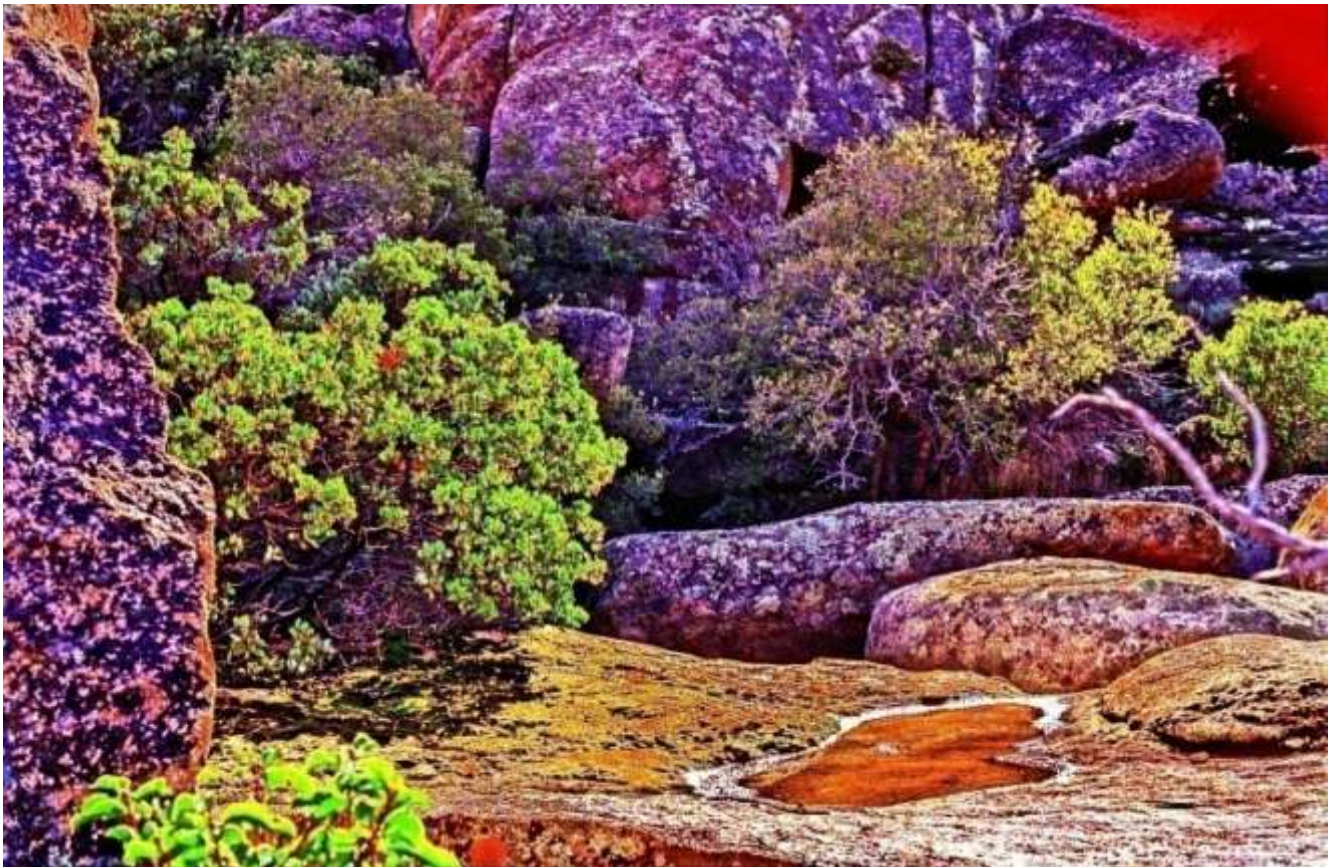
Bankhead Springs Monument above Interstate 18 and the McCain Valley (BLM)



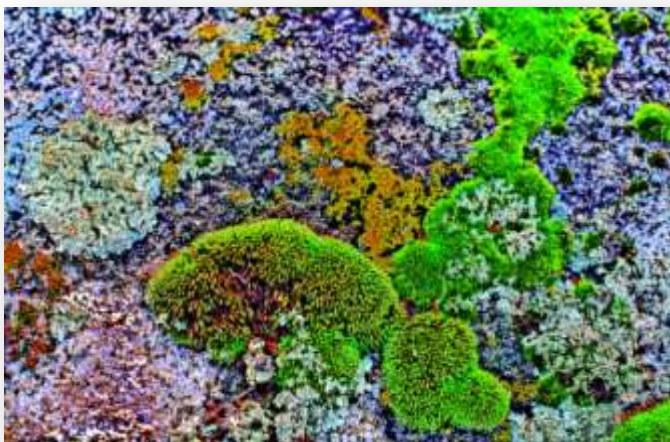


Bird above cliff garden, Bankhead Springs California, 2/21/93





Water in rock garden, Bankhead Springs California





Acorn grinding rock





Western view of Anthropological Reserve, Interstate 8 and McCain Valley, February 21, 1993





Manzanita and flat granite





Southern stone monument and cave





Northeast ridgeline view of adjacent Anza Borrego Desert State Park in the background





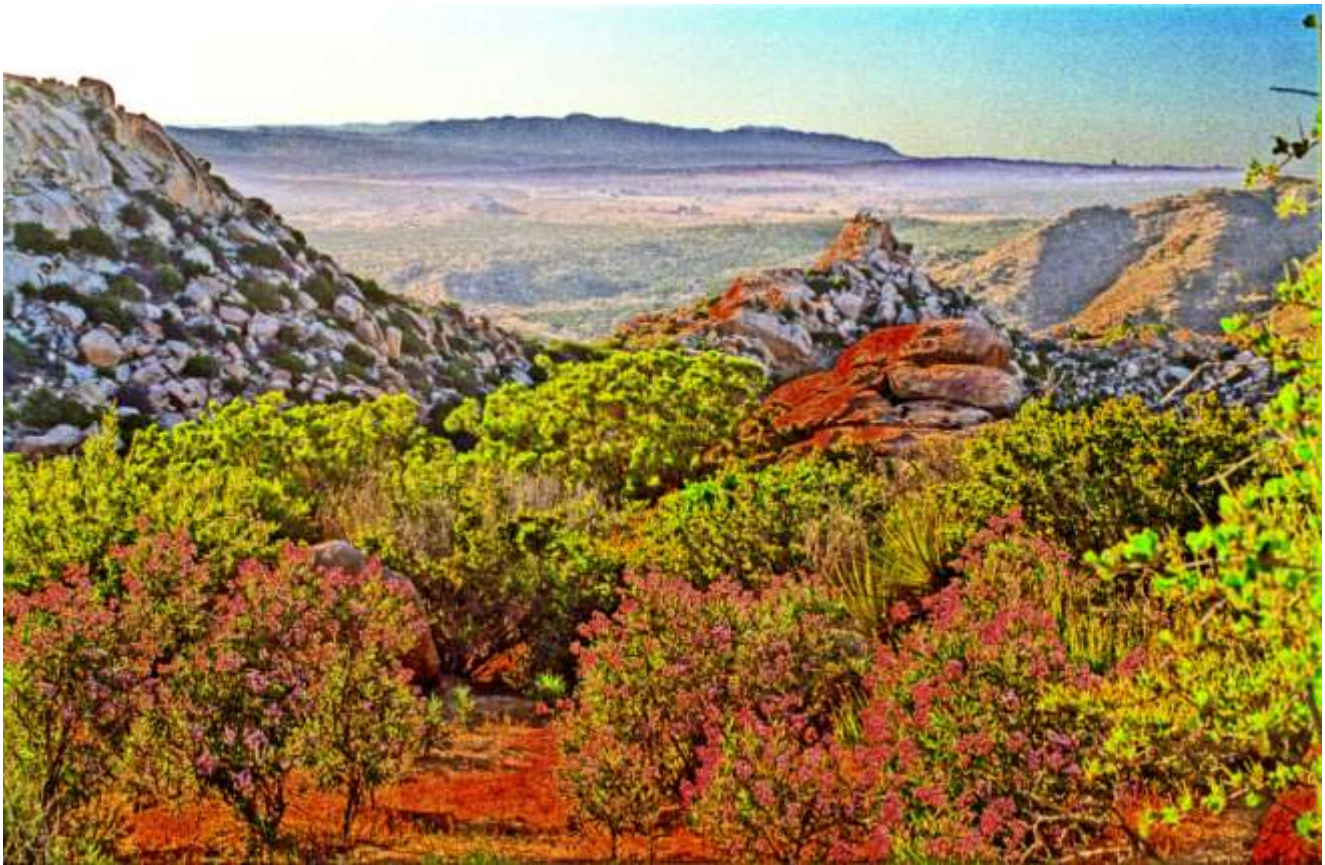
Northern rock head at sunset





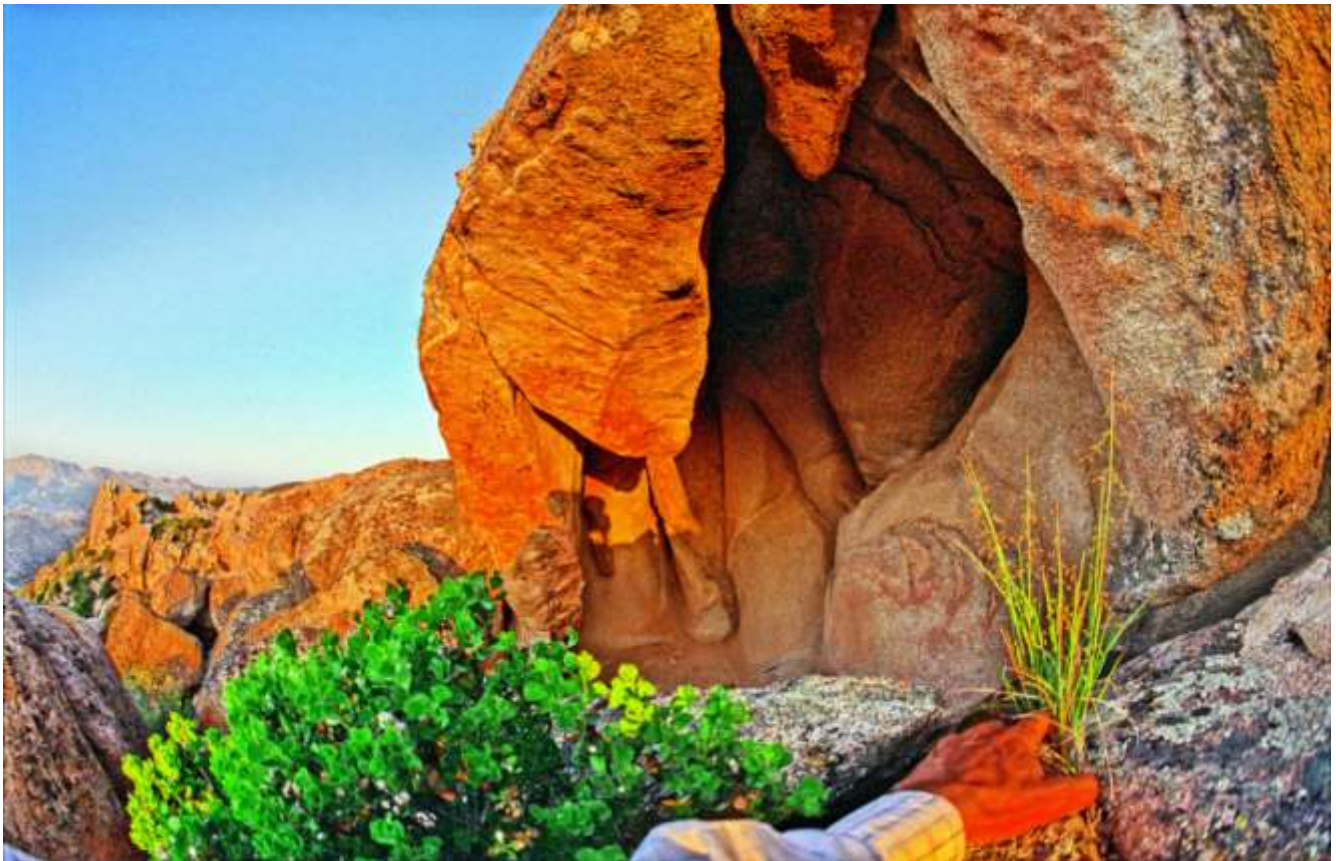
Looking north into Anza Borrego Desert State Park in the background





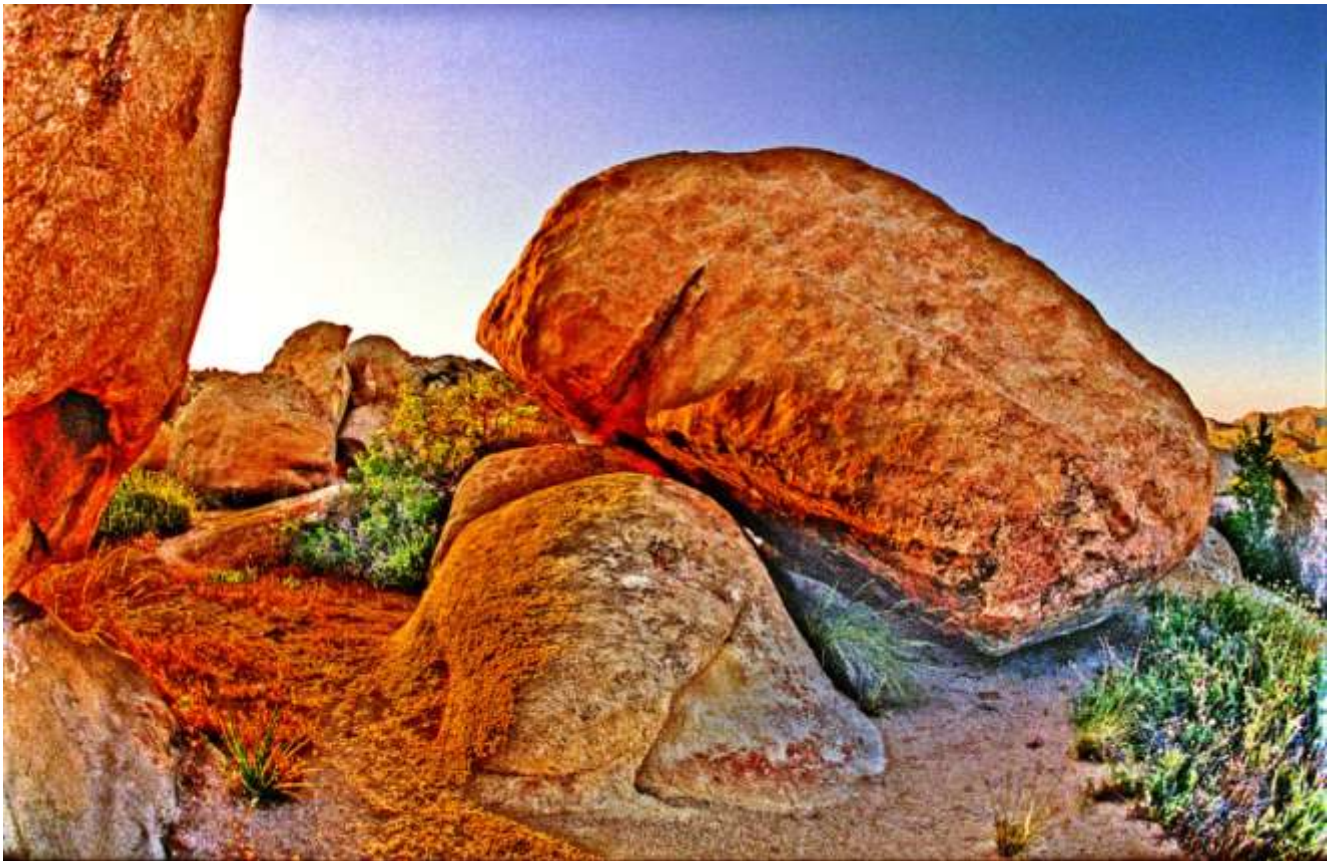
Evening beyond the northwest valley, above the McCain Valley extending to the distant mountains in the background. Damages to this pristine wilderness could never be restored.





Mountain top cavity with ABDSP to left





Leaning rock at sunset





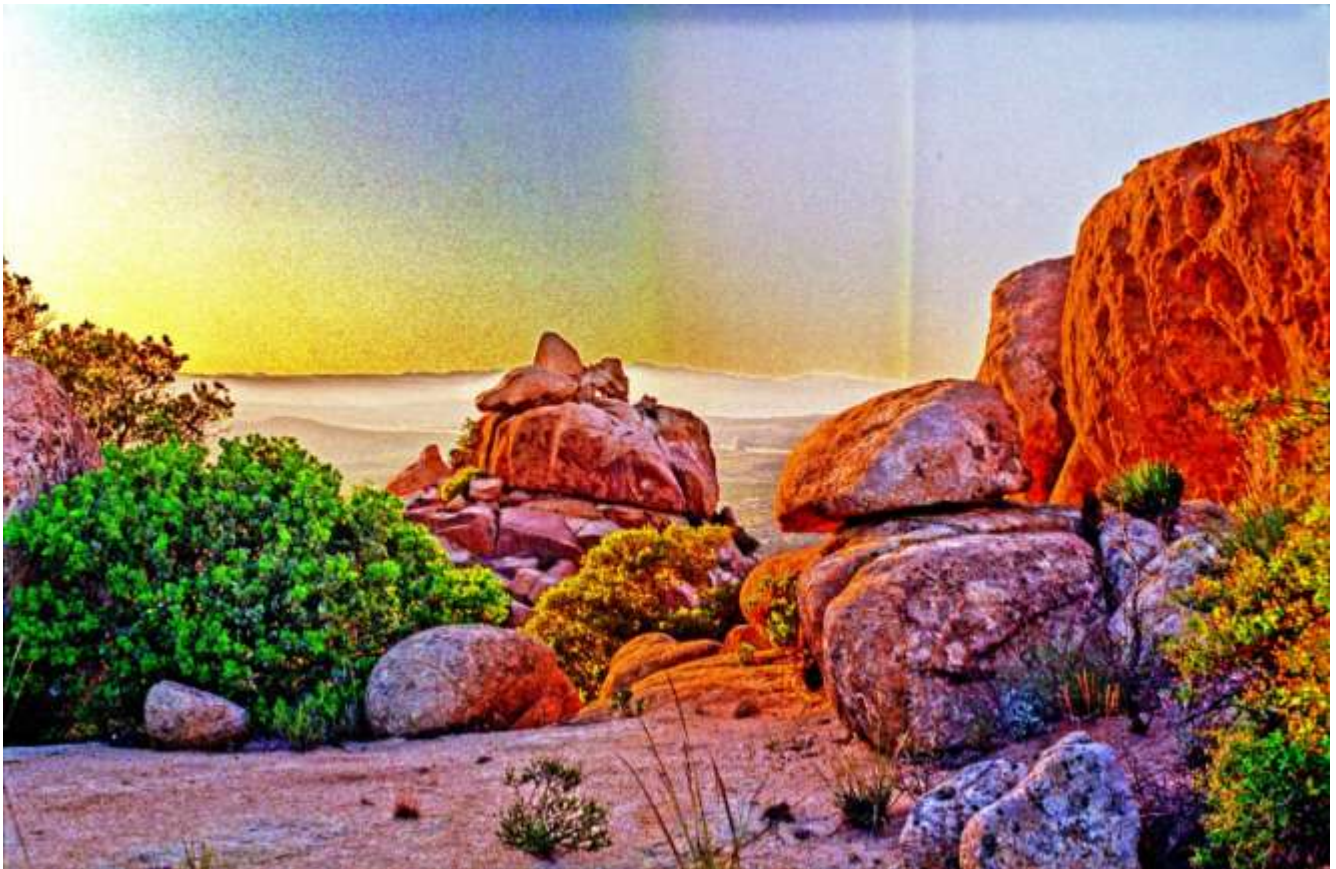
Light entering rock at sunset, 50mm lens on 35mm Kodacolor 100, Nikon V scan





Mountain top garden after sunset, looking west toward Boulevard California, 180 degree diagonal





Western point illuminated at sunset, above the McCain Valley in the background

