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October 10, 2013

VIA EMAIL AND U.S. MAIL

Robert J. Hingtgen
San Diego County Planning & Development
Services Department
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Re: Scoping Comments of The Protect Our Communities Foundation, Backcountry Against Dumps and Donna Tisdale for the Draft Programmatic Environmental Impact Report on the Soitec Solar Development Project

Dear Mr. Hingtgen:

Pursuant to the California Environmental Quality Act ("CEQA"), Public Resources Code ("PRC") section 21000 *et seq.*, the Protect Our Communities Foundation, Backcountry Against Dumps and Donna Tisdale (collectively "Conservation Groups") submit the following scoping comments for the Programmatic Environmental Impact Report ("PEIR") being prepared for the Soitec Solar Development Project ("Soitec Solar" or "Project").

At the outset, Conservation Groups oppose this Project as an unnecessary industrialization of scenic and environmentally sensitive rural land, including important wildlife habitat and farmland. To avoid many of the Project's significant environmental impacts while still providing renewable energy, Conservation Groups urge San Diego County ("County") to analyze and adopt as an alternative to the proposed Project the development of non-fossil fuel distributed generation projects near demand centers in already-disturbed areas. In further expression of these major concerns and others, Conservation Groups submit the following scoping comments.

I. PROJECT BACKGROUND

As described in the Notice of Preparation Public Review Period ("Notice") circulated by the San Diego County Planning and Development Services Department, the Soitec Solar Project would involve the construction and operation by Soitec Solar Development, LLC, of four separate

concentrated photovoltaic ("CPV") electrical generation facilities spread over 1,473 acres in eastern San Diego County, with a combined estimated electrical generation capacity of 168.5 megawatts ("MW"). The "Tierra Del Sol" project would be located on 420 acres at the California-Mexico border south of Boulevard, and would have a nameplate generation capacity of 60 MW. The "Rugged" project would encompass 765 acres just northeast of Boulevard across I-8, and have an estimated capacity of 80 MW. The 22-MW capacity "LanEast" facility would use 233 acres adjacent to I-8 to the east of Boulevard. And the 6.5-MW capacity "LanWest" facility would cover 55 acres adjacent to the LanEast facility on its western side.[1] The Project would operate year-round for *at least* 25 years – the term of the power purchase agreements ("PPAs") between Soitec Solar Development (and its subsidiaries) and San Diego Gas & Electric Company ("SDG&E").

To generate electricity, the Project would use *7,290* CPV trackers, each approximately "48 feet across by 25 feet tall." Initial Study, p. 9 (quote); Notice, p. 1. Given their massive size and considerable weight, each of the *1,200-square foot* CPV trackers would require mounting on a 28-inch steel mast that is either (1) inserted into a hole up to *20 feet deep*, (2) vibrated into the ground up to 20 feet deep, or (3) attached to a large concrete foundation, causing significant environmental disruption. Initial Study, p. 3. In addition, *each* of the four facilities – Tierra Del Sol, Rugged, LanWest and LanEast – would require underground and overhead collector systems, operations and maintenance buildings and grounds, an on-site collector substation, and an overhead generator tie-line ("gen-tie line") connecting the on-site substation to SDG&E's rebuilt Boulevard Substation. Initial Study, pp. 7-8; Notice, pp. 1-2. Constructing this infrastructure would require at least *44 million gallons of water* – or approximately 135 acre-feet – for the Tierra Del Sol and Rugged facilities *alone*. *Id*.

Given the Project's extensive footprint in environmentally sensitive areas, and the amount of infrastructure and natural resources required to construct and operate it, the Soitec Solar Project will have substantial and likely irreparable environmental impacts, all of which the County must analyze in its PEIR. To avoid many of those impacts while still providing renewable energy, the County should analyze and adopt as an alternative to the proposed Project the development of non-fossil fuel distributed generation projects near demand centers in already-disturbed areas.

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[1] Via letter on September 5, 2013, Soitec Solar Development (and its subsidiary LanWest Solar Farm LLC) requested that the County "withdraw the Major Use Permit Application for the LanWest solar farm project," and "close the case out." However, because Conservation Groups have not received confirmation that the LanWest Major Use Permit application has officially been withdrawn, and because the facility is discussed as part of the Project in the Initial Study and the Notice, Conservation Groups conservatively treat the facility as still part of the Project in these scoping comments.

II. THE COUNTY SHOULD ANALYZE AND ADOPT A DISTRIBUTED GENERATION ALTERNATIVE

To comply with CEQA, agencies must consider a "reasonable range" of alternatives. 14 Cal.Code.Regs. ("CEQA Guidelines") § 15126.6(a). To do so here, the County must analyze a distributed generation alternative. As discussed below, increasing distributed generation capacity in San Diego County by more than 168.5 MW – the expected generating capacity of the Soitec Solar Project – is not only feasible, it is environmentally and economically preferable.

A. Distributed Generation Is Feasible

The evidence is clear: Distributed generation – including such sources as solar photovoltaics ("PV"), small-scale rooftop wind turbines and combined heat and power plants – is both technically and economically feasible. In his testimony on "Alternatives to Large-Scale Wind and Solar Projects in San Diego County" presented at the July 20, 2012, San Diego County Planning Commission meeting, engineer Bill Powers, an expert on San Diego-area electrical systems planning, detailed many of the reasons why a distributed generation alternative is both feasible and desirable.[2]

Indeed, distributed generation is not only feasible, *it is already in use and rapidly expanding*. For example, SDG&E is on pace to add between 80 and 100 MW of distributed solar photovoltaic capacity in its service territory each year from 2013 through 2020. This new PV generation will be developed under the auspices of programs such as the Renewable Auction Mechanism program, which the California Public Utilities Commission ("CPUC") approved in December 2010.[3] Under that program, California will add 1,000 MW of local PV by 2015, 80.7 MW of which were allocated to SDG&E. SDG&E will also be allotted approximately 50 MW of local PV under the 750 MW SB 32 feed-in tariff distributed PV program.[4] Furthermore, by the end of 2016, approximately 180 MW of distributed PV capacity will be added in SDG&E's service territory under the California Solar Initiative "million solar roofs" program.[5] Combined,

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[2] Mr. Powers' testimony is attached hereto as Exhibit 1.

[3] CPUC Decision D.10-12-048, "Decision Adopting the Renewable Auction Mechanism," December 16, 2010, p. 30, Table 1, available at: http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/128432.pdf.

[4] CPUC feed-in tariff website, description of SB 32, available at: http://www.cpuc.ca.gov/PUC/energy/Renewables/feedintariffssum.htm.

[5] California Center for Sustainable Energy, "Overview of Solar Incentive Programs," October 9, 2009, p. 7, available at: http://www.slideshare.net/ccsemedia/overview-ofsolar-incentive-programs.

approximately 410 MW of local PV capacity will be developed in SDG&E's service territory by the end of 2015. And SDG&E has the ability to add much more, as its territory has at least 7,000 MW of urban and suburban PV potential.[6]

In addition to distributed PV, SDG&E is also on pace to add a substantial number of distributed combined heat and power plants over the next decade. Biogas- or biomethane-fired CHP plants are renewable portfolio standard-eligible, and there are up to 1,700 MW of currently estimated biogas and/or biomethane potential in California to fuel those plants.[7] California's AB 32 greenhouse gas compliance strategy calls for the development of 4,000 MW of CHP by 2020.[8] Since SDG&E supplies about 7 percent of the state's electricity,[9] about 280 MW of new CHP should be allocated to and added in SDG&E's service territory by 2020 to comply with the AB 32 target.

And, as discussed below, expanding SDG&E's renewable energy portfolio – and California's more broadly – with distributed instead of remote, industrial-scale generation will cause much less harm to the environment and public health, while also providing a more robust and sustainable economic stimulus.

B. Distributed Generation Is Better for the Environment and the Economy than Remote, Industrial-Scale Generation Projects Like Soitec Solar

Distributed energy projects such as rooftop solar PV have substantial environmental, aesthetic, economic and public safety benefits over remote, industrial-scale solar energy facilities

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[6] Powers, *San Diego Smart Energy 2020: The 21st Century Alternative*, October 2007, p. 48, available at: http://www.etechinternational.org/new_pdfs/smartenergy/52008_SmE2020_2nd.pdf.

[7] CEC PIER Program, Consultant Report, "Distributed Renewable Energy Assessment – Final Report," August 11, 2009, Appendix Bio-Power, p. 49, available at: http://www.cleancoalition.org/storage/references/11-aug-09_Navigant_distributed%20renewable%20energy%20assessment_final%20report.pdf.

[8] CPUC Decision D.10-12-035, "Decision Adopting Qualifying Facility and CHP Program Settlement Agreement," December 16, 2010, available at: http://docs.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/128624.PDF.

[9] California Energy Commission, "2007 Integrated Energy Policy Report, December 2007," p. 27, Figure 1-11, available at: http://www.energy.ca.gov/2007publications/CEC-100-2007-008/CEC-100-2007-008-CMF.PDF.

such as the Soitec Solar Project.[10] They do not mar the landscape with massive, glare-producing and unsightly CPV panels, or their associated powerlines, substations and industrial operations and maintenance buildings. They are much less likely to ignite catastrophic wildfires (see Section V below). They don't displace agriculture and wildlife habitat (see Sections IV and VIII below). They present a much smaller threat to wildlife (see Section IV below). They do not waste electricity due to conductor resistance and corona discharges along lengthy transmission lines.[11] Their reliability is far greater. And they are easier to upgrade as technology improves.

In addition, as these solar PV technologies improve and the liability costs of utility-scale renewable energy facilities become clearer, the per-watt installed price for distributed solar PV systems should soon drop below that of remote, utility-scale projects like the Soitec Solar Project. In likely recognition of this trend, many utility-scale renewable energy project developers themselves agree that distributed generation is the future of renewable energy power. For example, NRG Energy, Inc., CEO David Crane stated the following in a 2011 call with financial analysts:

> Ultimately, however, we fully recognize that the current generation of utility-sized solar and wind projects in the United States is largely enabled by favorable government policies and financial assistance. It seems likely that much of that special assistance is going to be phased out over the next few years, leaving renewable technologies to fend for themselves in the open market.
>
> We do not believe that this will be the end of the flourishing market for solar generation. We do believe that it will lead to a *stronger and more accelerated transition from an industry that is currently biased towards utility-sized solar plants to one that's focused more on distributed and even residential solar solutions on rooftops and parking lots*.
>
> We are already planning for this transition now within NRG, so that any potential

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[10] As former California Public Utilities Commission ("CPUC") Commissioner John Bohn acknowledged, "[u]nlike other generation sources, [distributed generation] projects can get built quickly and without the need for expensive new transmission lines. And . . . these projects are extremely benign from an environmental standpoint, with neither land use, water, or air emission impacts." CPUC, "CPUC Approves Edison Solar Roof Program," Press Release, June 18, 2009, *available at:* http://docs.cpuc.ca.gov/published/News_release/102580.htm.

[11] The U.S. Energy Information Administration estimates that California lost nearly *18 million* kilowatt-hours of electricity in 2010, due primarily to conductor resistance, corona discharges and other transmission and distribution line losses. Energy Information Administration, January 27, 2012, *State Electricity Profiles 2010*, DOE/EIA-0348(01)/2, at p. 30, *available at:* http://www.eia.gov/electricity/state/pdf/sep2010.pdf.

> decline in either the availability of utility-sized solar projects or in the attractiveness of the returns being realized on these projects, *will be exceeded in aggregate by the increase in the business we are doing on smaller distributed and residential solar projects* . . . . (emphasis added).[12]

In sum, distributed generation is not only feasible, it is environmentally and economically preferable to remote, utility-scale renewable energy generation facilities like the Soitec Solar Project.

III. HYDROLOGIC IMPACTS

CEQA requires the County to identify in its PEIR the likely water sources for the Project, and analyze the "environmental impacts of exploiting those sources" and "how those impacts are to be mitigated." *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* ("*Vineyard*") (2007) 40 Cal.4th 412, 421 (quote), 434, 440-441. "An EIR that neglects to explain the likely sources of water and analyze their impacts, but leaves long-term water supply considerations to later stages of the project, does not serve the purpose of sounding an environmental alarm bell." *Id*. at 441 (internal quotations and citation omitted)

Thus far, the County has merely noted that construction of the Tierra Del Sol and Rugged facilities would use at least 20 and 24 million gallons of local groundwater, respectively, for a total of more than *135 acre-feet*. Initial Study, pp. 7-8; Notice, pp. 1-2. CEQA requires more. The County must not only estimate the water needed to construct the other two Soitec Solar Project generation facilities – LanWest and LanEast – it must identify the *operational* water use for the entire Project. And if the evidence shows that Project operation "would demand . . . more than 75 acre-feet of water annually," the County must also prepare a Water Supply Assessment under Water Code section 10910. Water Code § 10912.

Furthermore, the County must do more than state that the Project will use local groundwater. It must identify the specific aquifer – and even well sites – from which the groundwater would be extracted, and the impacts of pumping therefrom. For example, the County must determine whether the Project would extract water from the Campo-Cottonwood Sole Source Aquifer – which seems likely, since the Project sits directly on top of it – and how such extraction would impact that fragile aquifer, the nearby wells, and the local population's ability to

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[12] Seeking Alpha, April 22, 2011, "NRG Energy's CEO Discusses Q4 2010 Results – Earnings Call Transcript," at p. 7, *available at:* http://seekingalpha.com/article/254272-nrg-energy-s-ceo-discusses-q4-2010-results-earnings-call-transcript (attached hereto as Exhibit 2)

obtain adequate water supplies.[13] Without this information, it would be impossible to analyze the impacts of supplying water to the Project as CEQA requires. *Vineyard*, 40 Cal.4th at 434 ("The ultimate question under CEQA . . . is whether [the EIR] adequately addresses the reasonably foreseeable *impacts* of supplying water to the project").

IV. HARM TO WILDLIFE

As the County admits, the "project sites contain sensitive biological habitats with the potential for use by sensitive and/or protected species." Initial Study, p. 19. Among those "sensitive and[] protected species" that the Project would likely harm are the federally endangered Quino checkerspot butterfly, whose critical habitat extends near the Project sites, the federally endangered Peninsular bighorn sheep, the golden eagle, and the burrowing owl, which is a California State Species of Special Concern. The County must thoroughly analyze the Project's impacts to these and other species in its PEIR.

In their 2011 *BioScience* article, Jeffrey Lovich and Joshua Ennen identify many of the "known and potential impacts of utility-scale solar energy development on wildlife in the desert Southwest,"[14] which the County should likewise analyze here. The impacts they identify from "facility construction and decommissioning" include the following:

- "Destruction and modification of wildlife habitat;"
- "Direct mortality of wildlife;"
- "Dust and dust-suppression effects;"
- "Road effects;"
- "Off-site impacts;" and
- "Destruction and modification of wildlife habitat."

Exhibit 4 at 984. They also identify the following impacts "due to facility presence, operation, and maintenance:"

- "Habitat fragmentation and barriers to movement and gene flow;"
- "Noise effects;"
- "Electromagnetic field effects;"
- "Microclimate effects;"
- "Pollution effects from spills;"

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[13] A copy of the official federal Environmental Protection Agency map of the sole source aquifer is attached hereto as Exhibit 3.

[14] Lovich, J.E. & J.R. Ennen, 2011, "Wildlife Conservation and Solar Energy Development in the Desert Southwest, United States," *BioScience*, 61(12): 982-992, at p. 984 (attached hereto as Exhibit 4).

- "Water consumption effects;"
- "Fire effects;" and
- "Light pollution effects, including polarized light."

Id. Because, like the environments studied by Lovich and Ennen, the Soitec Solar Project is located in a predominantly southwestern desert (specifically high desert) environment, the County should analyze all the listed impacts in its PEIR.

V. PUBLIC HEALTH AND SAFETY IMPACTS – FIRE

The California Department of Forestry and Fire Protection ("CalFire") has identified much of the area in and around the Project sites as a Very High Fire Hazard Severity Zone.[15] And within that context, the Project poses a grave risk of igniting, exacerbating and preventing the effective fighting of catastrophic wildfires. Not only do utility-scale solar energy generation plants and their associated transmission, substation and other facilities frequently cause wildfires, they greatly impede fire suppression efforts and pose safety risks to responding firefighters. For example, the Project, like other energy generation and transmission facilities in the San Diego County and Imperial County areas, would create a substantial hazard for low-flying spotter and bomber aircraft that apply aerial retardant. It would be nearly impossible to see the Project's transmission lines in the smoke filled skies, and either pilots would be forced to risk their lives by flying when the lines were not clearly visible, or aerial fire suppression would be stymied. The great risks to firefighters and impediments to firefighting caused by transmission lines are discussed in detail by Mark Ostrander, retired Battalion Chief with CalFire, in his April 14, 2011, expert testimony in a federal lawsuit challenging the Bureau of Land Management's approval of the Sunrise Powerlink project, which is attached as Exhibit 7 hereto. When combined with the extreme limitations industrial-scale solar projects and power lines put on ground firefighting attacks, the huge risks associated with aerial firefighting efforts would make large fires in the Project area virtually uncontrollable.

In addition to the Project's direct fire impacts, the Project also poses significant cumulative fire impacts of the Project alongside the many other energy projects in the region. The cumulative impacts of the industrialization of eastern San Diego County have the potential to permanently alter the fragile desert and mountain ecosystems there through a process called type conversion, described below:

> Plant invasions are widely recognized as significant threats to biodiversity conservation worldwide. One way invasions can affect native ecosystems is by changing fuel properties, which can in turn affect fire behavior and, ultimately,

[15] This is shown in CalFire's 2009 recommended map of very high fire hazard severity zones in the local responsibility area (attached hereto as Exhibit 5), and its 2007 adopted map of very high fire hazard severity zones in the state responsibility area (attached hereto as Exhibit 6).

> alter fire regime characteristics such as frequency, intensity, extent, type, and seasonality of fire. If the regime changes subsequently promote the dominance of the invaders, then an invasive plant-fire regime cycle can be established. As more ecosystem components and interactions are altered, restoration of preinvasion conditions becomes more difficult.[16]

As a result of the unacceptably high fire risks that the Project poses, Conservation Groups urge the County to reject the Project as currently proposed.

VI. PUBLIC HEALTH AND SAFETY IMPACTS – ELECTRIC AND MAGNETIC FIELDS

The Project would expose Project workers, wildlife and others to electric and magnetic field ("EMF") radiation. People and wildlife near the many inverter modules for the Projects CPV systems would be particularly susceptible to harm. Recent studies, such as those by Dr. Samuel Milham and Dr. Magda Havas, have linked EMF exposure with an increase in ailments such as diabetes, fibromyalgia, chronic fatigue syndrome and attention deficit disorder, among others.[17] Similarly, as reported in Lovich and Ennen's recent *BioScience* article, Doctor Alfonso Balmori (in a 2010 article) found the "possible impacts of chronic exposure to athermal electromagnetic radiation" on mammal species to include "damage to the nervous system,

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[16] M.L. Brooks *et al.*, "Effects of Invasive Alien Plants on Fire Regimes," *Bioscience*, 54:677-688, available at: http://www.californiachaparral.com/images/Brooks_et_al_Effects_of_Invasives_on_Fire_Regimes.pdf.

[17] *See, e.g.,* Samuel Milham, "Attention Deficit Hyperactivity Disorder and Dirty Electricity," *Journal of Developmental and Behavioral Pediatrics*, September 2011 (attached hereto as Exhibit 8); Samuel Milham, "Historical Evidence That Electrification Caused the 20th Century Epidemic of 'Diseases of Civilization,'" *Medical Hypotheses*, 74:337-345, 2010 (attached hereto as Exhibit 9); Samuel Milham and L. Lloyd Morgan, "A New Electromagnetic Exposure Metric: High Frequency Voltage Transients Associated With Increased Cancer Incidence in Teachers in a California School," *American Journal of Industrial Medicine*, 2008 (attached hereto as Exhibit 10); Magda Havas, "Dirty Electricity Elevates Blood Sugar among Electrically Sensitive Diabetics and May Explain Brittle Diabetes," *Electromagnetic Biology and Medicine*, 27:135-146, 2008; Magda Havas, "Electromagnetic Hypersensitivity: Biological Effects of Dirty Electricity with Emphasis on Diabetes and Multiple Sclerosis," *Electromagnetic Biology and Medicine*, 25:259-268, 2006, available at: http://www.next-up.org/pdf/Magda_Havas_EHS_Biological_Effets_Electricity_Emphasis_Diabetes_Multiple_Sclerosis.pdf; The National Foundation for Alternative Medicine, "The health effects of electrical pollution," available at: http://d1fj3024k72gdx.cloudfront.net/health_effects.pdf.

disruption of circadian rhythms, changes in heart function, impairment of immunity and fertility, and genetic and developmental problems." Exhibit 4 at 987. Furthermore, even though there remains some disagreement over the impacts of EMF, many "authors suggest that [this] . . . should not be cause for inaction. Instead, they argue that the precautionary principle should be applied in order to prevent a recurrence of the 'late lessons from early warnings' scenario that has been repeated throughout history." *Id*. The County must analyze the Project's EMF impacts in the PEIR.

VII. PUBLIC HEALTH AND SAFETY IMPACTS – GLARE

The County must analyze the Project's potential to cause significant glare from its 1,200-square foot CPV panel arrays. This glare would not only be an aesthetic nuisance to nearby residents and recreationists, it would pose a significant safety hazard to drivers. This hazard would be particularly acute for those driving along I-8 past the adjacent LanWest and LanEast facilities.

VIII. AGRICULTURAL IMPACTS

Nearly 400 acres of the Project sites are zoned for agriculture, as either A72 (General Agriculture) or A70 (Limited Agriculture). Initial Study, p. 16. And much of the "proposed [Rugged] project site has been used for grazing purposes for at least the past 20 years." *Id*. Indeed, in support of the agricultural use of those lands and for the purpose of preserving them in agricultural use under the Williamson Act (Government Code section 51200 *et seq.*), the County designated an area including part of the Tierra Del Sol site as an Agricultural Preserve (AP 77-46). *Id*. at pp. 8, 9, 15. The Project would undo all of that, and cause significant agricultural impacts. *Id*. at p. 9 (Project would require disestablishment of the portion of Agricultural Preserve 77-46 on the Tierra Del Sol site).

By removing agricultural lands from grazing and agricultural production for *at least 25 years* (with "additional terms anticipated" and a solar facility lifespan of more than 30 years), and stripping those lands of their legal agricultural use protections, the Project makes it unlikely that the lands would be ever again be available – let alone used – for grazing or agriculture. One major reason for that is erosion of topsoil. As the Initial Study acknowledges, the soils on at least the Tierra Del Sol and Rugged sites "have a soil erodibility rating of 'severe.'" Initial Study, p. 24. By converting these areas to an high-intensity industrial use from low-intensity grazing, agricultural and other rural uses, the Project would likely cause substantial erosion of fertile and difficult-to-replace topsoil.

Further impairing the viability of grazing and agriculture in the County would be the Project's impact on ranching- and agriculture-serving businesses. As more ranch land and farmland is converted to non-agricultural uses, and as more ranching- and agriculture-serving businesses close or reduce their stocks, it becomes harder and more expensive for the remaining ranchers and farmers to cost-effectively obtain the supplies and services (e.g. veterinarian care) to

maintain their pastures, crops and animals. This in turn results in more ranch land and farmland conversion, and even greater reductions in agricultural services. It is a vicious cycle of ripple and cascading effects whose cumulative impact on the ranching and agricultural economy is rarely acknowledged, let alone adequately evaluated.

The County must fully analyze these and other impacts to ranching and agriculture, both on the Project sites and in the region generally. The County must also ensure that it complies with the Williamson Act (*e.g.* Government Code sections 51232 and 51233) and the County Board of Supervisors Policy No. I-38 in disestablishing the portion of Agricultural Preserve 77-46 on the Tierra Del Sol site, and analyze compliance with those land use laws and policies in the PEIR.

IX. NOISE IMPACTS

In analyzing the Project's audible noise impacts, the County should normalize its noise emission estimates to account for the fact that the Project area is a rural community with little to no prior exposure to industrial noise, such as would be produced by Project. In addition, the County should analyze not only the Project's audible noise emissions and impacts, but its inaudible infrasound and low-frequency noise emissions too, which have recently been shown to have a much greater potential to impact humans than previously thought.[18]

X. GLOBAL WARMING

The Initial Study states that while the Project will produce some GHGs through construction and operation, it "is expected to offset greenhouse gas ("GHG") emissions by serving as a longterm renewable energy source, thereby decreasing overall emissions attributable to electrical generation in California." Initial Study, p. 27. The County should not be so swift in its conclusions. It must carefully examine these conclusions in the PEIR, analyzing all the Project's potential GHG emission sources and comparing the total emissions per kilowatt-hour (averaged over the expected life of the Project) to the other energy sources the County implies will be displaced.

In assessing the Project's GHG emission impacts in the PEIR, the County must do more than just calculate the GHG emissions from construction activities, construction-related vehicle traffic and employee vehicle use during Project operation, which is all the Initial Study indicates will be done. Initial Study, p. 27. The County must also (1) assess the Project's substantial *embedded* greenhouse gas emissions: the GHG emissions associated with production of the materials used to construct the Project, such as the photovoltaic panels; and (2) compute the change in GHG emissions from the soil on the Project site resulting from the Project's conversion

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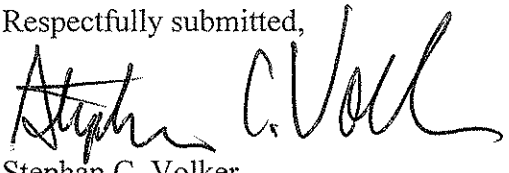
[18] Salt, Alec & Jeffery Lichtenhan, 2012, "Perception-based protection from low-frequency sounds may not be enough," presented at InterNoise 2012 in New York City, New York, August 19-22, 2012, at p. 5 (attached hereto as Exhibit 11).

of the land from grazing, agricultural production and other lower-intensity rural uses to the proposed industrial-scale CPV facilities. Additionally, the County must ascertain whether the electricity produced by the Project would actually either (1) supplant electricity currently generated by fossil fuel-based systems, or (2) meet a future energy demand that would otherwise be met with fossil fuel-based generation.

XI. CONCLUSION

Conservation Groups oppose this Project as an unnecessary industrialization of scenic and environmentally sensitive rural land, including important wildlife habitat and farmland. To avoid many of the Project's aforementioned significant environmental impacts while still providing renewable energy, Conservation Groups urge the County to analyze and adopt as an alternative to the proposed Project the development of non-fossil fuel distributed generation projects near demand centers in already-disturbed areas. The County must also fully analyze each of the foregoing environmental impacts in its PEIR.

Respectfully submitted,



Stephan C. Volker
Attorney for The Protect Our Communities Foundation.,
Backcountry Against Dumps and Donna Tisdale

SCV:taf

LIST OF EXHIBITS

1. Powers, Bill, July 20, 2012, "Alternatives to Large-Scale Wind and Solar Projects in San Diego County," presentation at the July 20, 2012, San Diego County Planning Commission Regular Meeting;

2. Seeking Alpha, April 22, 2011, "NRG Energy's CEO Discusses Q4 2010 Results – Earnings Call Transcript;"

3. U.S. Environmental Protection Agency, Region 9 GIS Center, 2008, "Campo-Cottonwood Sole Source Aquifer: Designated Area" (map);

4. Lovich, Jeffrey E., and Joshua R. Ennen, 2011, "Wildlife Conservation and Solar Energy Development in the Desert Southwest, United States," *BioScience* 61(12):982-992;

5. California Department of Forestry and Fire Protection, June 12, 2009, "Very High Fire

Hazard Severity Zones in LRA: As Recommended by CalFire" (map), CalFire Map ID: FHSZL_MAP;

6. California Department of Forestry and Fire Protection, November 7, 2007, "Fire Hazard Severity Zones in SRA" (map), CalFire Map ID: FHSZS_MAP;

7. Declaration of Mark Ostrander in Support of Plaintiffs' Motion for Preliminary Injunction and Application for Temporary Restraining Order, April 14, 2011, Docket # 122-5 in Case # 3:10-CV-01222 (S.D.Cal.);

8. Milham, Samuel, September 2011, "Attention Deficit Hyperactivity Disorder and Dirty Electricity," Letter to Editor, *Journal of Developmental and Behavioral Pediatrics*;

9. Milham, Samuel, 2010, "Historical Evidence That Electrification Caused the 20th Century Epidemic of 'Diseases of Civilization.'" *Medical Hypotheses*, 74:337-345;

10. Milham, Samuel & L. Lloyd Morgan, 2008, "A New Electromagnetic Exposure Metric: High Frequency Voltage Transients Associated with Increased Cancer Incidence in Teachers in a California School," *American Journal of Industrial Medicine*;

11. Salt, Alec & Jeffery Lichtenhan, 2012, "Perception-based protection from low-frequency sounds may not be enough," presented at InterNoise 2012 in New York City, New York, August 19-22, 2012;