

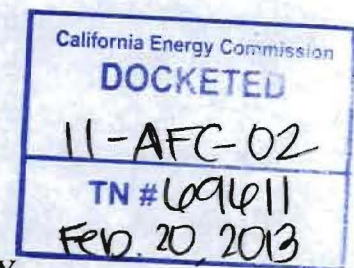
STATE OF CALIFORNIA

**Energy Resources Conservation
and Development Commission**

In the Matter of:

APPLICATION FOR CERTIFICATION
FOR THE HIDDEN HILLS SOLAR
ELECTRIC GENERATING SYSTEM

DOCKET NO. 11-AFC-02



CENTER FOR BIOLOGICAL DIVERSITY

**OPENING TESTIMONY, EXHIBIT LIST,
AND PROOF OF SERVICE**

February 4, 2013

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INTRODUCTION

Intervenor Center for Biological Diversity (the "Center") provides this Opening Testimony regarding the application for certification of the proposed Hidden Hills Solar Electric Generating System.

All of the testimony presented herein was prepared by the person testifying, a signed declaration and resume has also been provided for each person.

Center Attorney Lisa T. Belenky and Wildlands Desert Director Ileene Anderson assisted in compiling this testimony and the documents submitted. An Exhibit List and copies of the documents referenced in the opening testimony are filed concurrently with this testimony.

The Center for Biological Diversity reserves the right to supplement and/or revise this testimony at any time up to and including the close of the evidentiary hearings. Moreover, many of the factual issues discussed in this Opening Testimony involve both legal and factual questions while others are predominately legal issues. Therefore, the Center respectfully reserves the right to address all disputed issues identified at the hearings through testimony, rebuttal, cross-examination, or at later stages of this process including in briefing following the evidentiary hearing.

Pursuant to the notice of prehearing conference and evidentiary hearing and order, the Center may also file rebuttal testimony on or before February 11, 2013.

The Center for Biological Diversity also requests that the Committee take official notice of **Exhibit 511** cited in the testimony which was published by the California Energy Commission and is available on the Commission's DRECP website.

TESTIMONY SUBMITTED

- 1. Testimony of Ileene Anderson Re: Impacts to Sensitive Plants and Wildlife from the Proposed Hidden Hills Solar Electric Generating System, Declaration, and Resume**
- 2. Testimony of Bill Powers, P.E., Declaration, Resume**

EXHIBIT LIST (Also provided in Word in a table format to CEC)

Intervenor Center for Biological Diversity's Exhibits No. 500- 599.

Doc. No.	Author and title
Exhibit 500:	Testimony of Ileene Anderson Re: Impacts to Sensitive Plants and Wildlife from the Proposed Hidden Hills Solar Electric Generating System, Declaration, and CV
Exhibit 501:	Moilanen, A., A.J.A. van Teeffelen, Y. Ben-Haim and S. Ferrier. 2009. How much compensation is enough? A framework for incorporating uncertainty and time discounting when calculating offset ratios for impacted habitat. <i>Restoration Ecology</i> 17(4): 470-478.
Exhibit 502:	Norton, D.A. 2009. Biodiversity offsets: two New Zealand case studies and an assessment framework. <i>Environmental Management</i> 43(4):698-706
Exhibit 503:	U.S. Fish and Wildlife Service (USFWS) 2009. Range-wide monitoring of the Mojave population of the Desert Tortoise: 2007 Annual Report. Report by the Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, Reno, Nevada. Pgs. 77 http://www.fws.gov/nevada/desert_tortoise/documents/reports/2007_Rangewide_Desert_Tortoise_Population_Monitoring.pdf
Exhibit 504:	U.S. Fish and Wildlife Service. 2012. Range-wide Monitoring of the Mojave Desert Tortoise (<i>Gopherus agassizii</i>): 2008 and 2009 Reporting. Report by the Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, Reno, Nevada. Pgs. 71. http://www.fws.gov/nevada/desert_tortoise/documents/reports/2012/200809_Rangewide_Mojave_DT_Monitoring_20120928.pdf
Exhibit 505:	U.S. Fish and Wildlife Service. 2012. Range-wide Monitoring of the Mojave Desert Tortoise (<i>Gopherus agassizii</i>): 2010 Annual Report. Report by the Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, Reno, Nevada. Pgs. 50. http://www.fws.gov/nevada/desert_tortoise/documents/reports/2012/2010_Rangewide_Mojave_DT_Monitoring_20120930.pdf
Exhibit 506:	U.S. Fish and Wildlife Service. 2012. DRAFT Range-wide Monitoring of the Mojave Desert Tortoise (<i>Gopherus agassizii</i>): 2012 Annual Report. Report by the Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, Reno, Nevada. Pgs. 54. http://www.fws.gov/nevada/desert_tortoise/documents/reports/2012/2012_DRAFT_Rangewide_Mojave_Desert_Tortoise_Monitoring.pdf

- Exhibit 507:** Gowan, T. and K.H. Berry. 2009. Progress Report for 2009: The Health Status of Translocated Desert Tortoises (*Gopherus agassizii*) in the Fort Irwin Translocation Area and Surrounding Release Plots, San Bernardino County, California: Year 2. for National Training Center Fort Irwin. Pgs. 27.
- Exhibit 508:** Independent Science Advisors (ISA) 2010. Recommendations of Independent Science Advisors for the California Desert Renewable Energy Conservation Plan (DRECP). Prepared For Renewable Energy Action Team. Prepared By The DRECP Independent Science Advisors. DRECP-1000-2010-008-F. October 2010. Pgs. 192
<http://www.energy.ca.gov/2010publications/DRECP-1000-2010-008/DRECP-1000-2010-008-F.PDF>
- Exhibit 509:** Berry, K.H., L. Lyren and T. Bailey 2012. A comparison of desert tortoise populations and habitat on three types of managed lands in the western Mojave desert in Spring 2011: the Rand Mountains/Fremont Valley, Desert Tortoise Research Natural Area, and Private Parcels. Final Report. Pgs 1.
- Exhibit 510:** Nussear, K.E., Esque, T.C., Inman, R.D., Gass, Leila, Thomas, K.A., Wallace, C.S.A., Blainey, J.B., Miller, D.M., and Webb, R.H., 2009, Modeling habitat of the desert tortoise (*Gopherus agassizii*) in the Mojave and parts of the Sonoran Deserts of California, Nevada, Utah, and Arizona: U.S. Geological Survey Open-File Report 2009-1102, 18 p.
<http://pubs.usgs.gov/of/2009/1102/>
- Exhibit 511:** DRECP 2012. Section 2 – Description of Alternatives. Pgs. 146
http://www.drecp.org/documents/docs/alternatives_eval/Section_2_Description_of_Alternatives.pdf (The Center requests official notice of this exhibit as explained above.)
- Exhibit 512:** California Department of Fish and Game (CDFG) 2010. Natural Communities List and Ranking. Pgs. 72.
<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=24716&inline=1>
- Exhibit 513:** Dannelski, D. 2012. Mojave Desert: \$20 million tortoise habitat deal in the works. Press Enterprise, July 20, 2012. 3 pgs. <http://www.pe.com/local-news/topics/topics-environment-headlines/20120720-mojave-desert-20-million-tortoise-habitat-deal-in-the-works.ece>
- Exhibit 514:** Esque, T.C., K.E. Nussear, K.K. Drake, A.D. Walde, K.H. Berry, R.C. Averill-Murray, A. Peter Woodman, W.I. Boarman, P.A. Medica, J. Mack and J.S. Heaton. 2010. Effects of subsidized predators, resource

variability and human population density on the desert tortoise populations in the Mojave desert, USA. *Endangered Species Research* 12: 167-177.

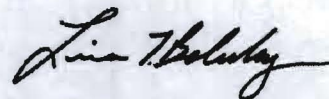
- Exhibit 515:** McCrary, M.D., R.L. McKernan, R.W. Schreiber, W.D. Wagner and T.C. Sciarrotta. 1986. Avian Mortality at a Solar Energy Power Plant. *Journal of Field Ornithology* 57(2): 135-141
- Exhibit 516:** Map of Audubon's Important Bird Areas and the HHSEGS proposed project.
- Exhibit 517** Manning, J.A. 2009. Burrowing owl population size in the Imperial Valley, California: survey and sampling methodologies for estimation. Final report to the Imperial Irrigation District, Imperial, California, USA, April 15, 2009. Pgs 193.
- Exhibit 518** California Department of Fish and Game (CDFG) 2012. Staff Report on Burrowing Owl Mitigation. State of California-Natural Resources Agency, Department of Fish and Game. March 7, 2012. Pgs. 36
<http://www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf>
- Exhibit 519:** USFWS 2003. Status Assessment and Conservation Plan for the Western Burrowing Owl in the United States. Biological Technical Publication BTP-R6001-2003. Pgs 120.
- Exhibit 520** Bureau of Land Management 2012. Solar Applications and Authorizations. Pgs. 4.
<http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/pa/energy/solar.Par.84447.File.dat/BLM%20Solar%20Apps%20and%20Auths.pdf>
- Exhibit 521** Bureau of Land Management 2012. Wind Applications and Authorizations. Pgs. 7.
<http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/pa/energy.Par.5556.File.dat/BLM%20Solar%20Apps%20&%20Auths%20July%202012.pdf>
- Exhibit 522** County of Kern 2012. Wind Applications and Authorizations. Pgs. 3.
http://www.co.kern.ca.us/planning/pdfs/renewable/wind_projects.pdf
- Exhibit 523** BLM. 2012. McCoy Solar Energy Project, Proposed Plan Amendment and Final Environmental Impact Statement, Volume 1 or 2, December 2012 CACA #048728 DOI Control #: DES 12-21 Publication Index #: BLM/CA/ES-2013-008+1793. Pgs.793.
http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/palmsprings/Solar.Par.89379.File.dat/Vol1_McCoy%20PA-FEIS.pdf

- Exhibit 524** CEC 2012. Notice of Receipt. Petition to amend the Energy Commission Decision for the Ivanpah Solar Electric Generating System (07-AFC-5C) [http://www.energy.ca.gov/sitingcases/ivanpah/compliance/2012-07-12 Notice of Receipt Petition to Amend TN-68801.pdf](http://www.energy.ca.gov/sitingcases/ivanpah/compliance/2012-07-12%20Notice%20of%20Receipt%20Petition%20to%20Amend%20TN-68801.pdf)
- Exhibit 525:** Belnap, J. 2006. The potential roles of biological soil crusts in dryland hydrologic cycles. *Hydrologic Processes* 20: 3159-3178.
- Exhibit 526:** Belnap, J. 2001. Biological Soil Crusts and Wind Erosion. Chapter 25 in *Ecological Studies Vol. 150*. J. Belnap and O.L. Lange (eds.) Biological soil crusts: structure, function and Management. Springer-Verlag, Berlin Heidelberg. Pgs. 9.
- Exhibit 527:** Belnap, J. and D. Eldridge 2001. Disturbance and Recovery of Biological Soil Crusts. Chapter 27 in *Ecological Studies Vol. 150*. J. Belnap and O.L. Lange (eds.) Biological soil crusts: structure, function and Management. Springer-Verlag, Berlin Heidelberg. Pgs. 21.
- Exhibit 528:** Brown, D.E. and R.A. Minnich. 1986. Fire and Changes in Creosote Bush Scrub of the Western Sonoran Desert, CA. *American Midland Naturalist* 116(2): 411-422.
- Exhibit 529:** Lovich, J. E. and D. Bainbridge 1999. Anthropogenic Degradation of the Southern California Desert Ecosystem and Prospects for Natural Recovery and Restoration. *Environmental Management* 24(3): 309-326.
- Exhibit 530:** Brooks, M.L. 2000. Competition Between Alien Annual Grasses and Native Annual Plants in the Mojave Desert. *American Midland Naturalist* 144: 92-108.
- Exhibit 531:** Brooks, M. L. and J. V. Draper. 2006. Fire effects on seed banks and vegetation in the Eastern Mojave Desert: implications for post-fire management, extended abstract, U.S. Geological Survey, Western Ecological Research Center, Henderson, Nevada, 3 p.
- Exhibit 532:** Brooks, M.L. and R.A. Minnich. 2007. Fire in the Southeastern Deserts Bioregion. Chp 16 in: Sugihara, N.G., J.W. van Wagtenonk, J. Fites-Kaufman, K.E. Shaffer, and A.E. Thode (eds.). *Fire in California Ecosystems*. University of California Press, Berkeley.
- Exhibit 533:** Dutcher, K. E. 2009. The effects of wildfire on reptile populations in the Mojave National Preserve, California. Final Report to the National Park Service, California State University, Long Beach. Pgs 28.

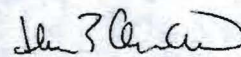
- Exhibit 534** Wohlfahrt, G., L.F. Fenstermaker, J.A. Arone III. 2008. Large annual net ecosystem CO2 uptake of a Mojave Desert ecosystem. *Global Change Biology* 14: 1475-1487.
- Exhibit 535** Initial Application of Pahrump Valley Solar LLC for Permit to Construct Solar Facilities under the Utility Environmental Protection Act (2012). Filed with the Nevada Public Utilities Commission. December 26, 2012. Pgs. 38.
http://pucweb1.state.nv.us/PDF/AxImages/DOCKETS_2010_THRU_PRESENT/2012-12/22388.pdf
- Exhibit 536** Testimony of Bill Powers, P.E., Regarding Alternatives, Declaration, Resume.
- Exhibit 537** Comments to California Public Utilities Commission from Sierra Club and Vote Solar Initiative on Resources Adequacy and Flexible Capacity Procurement, December 26, 2012
- Exhibit 538** Bay Area Smart Energy 2020 Report
- Exhibit 539** More Distributed Solar Means Fewer New Combustion Turbines, September 2012, Natural Gas & Electricity

Respectfully submitted,

Date: February 4, 2013



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