

**STATE OF CALIFORNIA**  
**Energy Resources Conservation**  
**and Development Commission**

California Energy Commission
<b>DOCKETED</b> <b>11-AFC-02</b>
TN # 69406
FEB. 04 2013

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

Lisa T. Belenky, Senior Attorney  
Center for Biological Diversity  
351 California St., Suite 600  
San Francisco, CA 94104  
Direct: 415-632-5307  
Fax: 415-436-9683  
[lbelenky@biologicaldiversity.org](mailto:lbelenky@biologicaldiversity.org)

Ileene Anderson  
Wildlands Desert Director  
Center for Biological Diversity  
8033 Sunset Boulevard, #447  
Los Angeles, CA 90046  
(323) 654-5943  
[ianderson@biologicaldiversity.org](mailto:ianderson@biologicaldiversity.org)

## 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.**

<b>Doc. No.</b>	<b>Author and title</b>
<b>Exhibit 500:</b>	Testimony of Ileene Anderson Re: Impacts to Sensitive Plants and Wildlife from the Proposed Hidden Hills Solar Electric Generating System, Declaration, and CV
<b>Exhibit 501:</b>	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.
<b>Exhibit 502:</b>	Norton, D.A. 2009. Biodiversity offsets: two New Zealand case studies and an assessment framework. <i>Environmental Management</i> 43(4):698-706
<b>Exhibit 503:</b>	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 <a href="http://www.fws.gov/nevada/desert_tortoise/documents/reports/2007_Rangewide_Desert_Tortoise_Population_Monitoring.pdf">http://www.fws.gov/nevada/desert_tortoise/documents/reports/2007_Rangewide_Desert_Tortoise_Population_Monitoring.pdf</a>
<b>Exhibit 504:</b>	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. <a href="http://www.fws.gov/nevada/desert_tortoise/documents/reports/2012/200809_Rangewide_Mojave_DT_Monitoring_20120928.pdf">http://www.fws.gov/nevada/desert_tortoise/documents/reports/2012/200809_Rangewide_Mojave_DT_Monitoring_20120928.pdf</a>
<b>Exhibit 505:</b>	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. <a href="http://www.fws.gov/nevada/desert_tortoise/documents/reports/2012/2010_Rangewide_Mojave_DT_Monitoring_20120930.pdf">http://www.fws.gov/nevada/desert_tortoise/documents/reports/2012/2010_Rangewide_Mojave_DT_Monitoring_20120930.pdf</a>
<b>Exhibit 506:</b>	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. <a href="http://www.fws.gov/nevada/desert_tortoise/documents/reports/2012/2012_DRAFT_Rangewide_Mojave_Desert_Tortoise_Monitoring.pdf">http://www.fws.gov/nevada/desert_tortoise/documents/reports/2012/2012_DRAFT_Rangewide_Mojave_Desert_Tortoise_Monitoring.pdf</a>

- 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](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:** Danelski, 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.55556.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](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](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_Notice_of_Receipt_Petition_to_Amend_TN-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 CO<sub>2</sub> 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](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



Lisa T. Belenky, Senior Attorney  
Center for Biological Diversity  
351 California St., Suite 600  
San Francisco, CA 94104  
Direct: 415-632-5307  
Fax: 415-436-9683  
[lbelenky@biologicaldiversity.org](mailto:lbelenky@biologicaldiversity.org)



Ilene Anderson  
Wildlands Desert Director  
Center for Biological Diversity  
PMB 447, 8033 Sunset Boulevard  
Los Angeles, CA 90046  
(323) 654-5943  
[ianderson@biologicaldiversity.org](mailto:ianderson@biologicaldiversity.org)



**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT  
COMMISSION OF THE STATE OF CALIFORNIA  
1516 NINTH STREET, SACRAMENTO, CA 95814  
1-800-822-6228 – WWW.ENERGY.CA.GOV**

***APPLICATION FOR CERTIFICATION FOR THE  
HIDDEN HILLS SOLAR ELECTRIC  
GENERATING SYSTEM***

**Docket No. 11-AFC-02**

**PROOF OF SERVICE  
(Revised 1/16/13)**

**SERVICE LIST:**

**APPLICANT**

Stephen Wiley  
Michelle L. Farley  
Bradley Brownlow  
BrightSource Energy  
1999 Harrison Street, Suite 2150  
Oakland, CA 94612-3500  
swiley@brightsourceenergy.com  
mfarley@brightsourceenergy.com  
bbrownlow@brightsourceenergy.com

Clay Jensen  
Gary Kazio  
BrightSource Energy  
410 South Rampart Blvd., Suite 390  
Las Vegas, NV 89145  
cjensen@brightsourceenergy.com  
gkazio@brightsourceenergy.com

**APPLICANTS' CONSULTANTS**

Susan Strachan  
Strachan Consulting, LLC  
P.O. Box 1049  
Davis, CA 95617  
susan@strachanconsult.com

John Carrier  
CH2MHill  
2485 Natomas Park Drive, Suite 600  
Sacramento, CA 95833-2987  
jcarrier@ch2m.com

**APPLICANT'S COUNSEL**

Chris Ellison  
Jeff Harris  
Samantha Pottenger  
Ellison, Schneider and Harris, LLP  
2600 Capitol Avenue, Suite 400  
Sacramento, CA 95816-5905  
cte@eslawfirm.com  
jdh@eslawfirm.com  
sgp@eslawfirm.com

**INTERVENORS**

Jon William Zellhoefer  
P.O. Box 34  
Tecopa, CA 92389  
jon@zellhoefer.info

Lisa T. Belenky, Sr. Attorney  
Center for Biological Diversity  
351 California Street, Suite 600  
San Francisco, CA 94104  
lbelenky@biologicaldiversity.org

Ileene Anderson  
Public Lands Desert Director  
Center for Biological Diversity  
PMB 447  
8033 Sunset Boulevard  
Los Angeles, CA 90046  
ianderson@biologicaldiversity.org

Jack Prichett  
Old Spanish Trail Association  
857 Nowita Place  
Venice, CA 90291  
jackprichett@ca.rr.com

**INTERVENORS (Cont'd.)**

Cindy R. MacDonald  
3605 Silver Sand Court  
N. Las Vegas, NV 89032  
sacredintent@centurylink.net

Richard Arnold  
P.O. Box 3411  
Pahrump, NV 89041  
rwarnold@hotmail.com

**INTERESTED AGENCIES**

California ISO  
e-recipient@caiso.com

Duane Ono  
Deputy Air Pollution Control Officer  
Great Basin Unified APCD  
157 Short Street  
Bishop, CA 93514  
dono@gbuapcd.org

Dana Crom  
Deputy County Counsel  
County of Inyo  
P.O. Box M  
Independence, CA 93526  
dcrom@inyocounty.us

Lorinda A. Wichman, Chairman  
Board of County Supervisors  
Nye County  
P.O. Box 153  
Tonopah, NV 89049  
lawichman@gmail.com



**INTERESTED AGENCIES (Cont'd.)**

L. Darrel Lacy  
Interim General Manager  
Nye County Water District  
2101 E. Calvada Boulevard  
Suite 100  
Pahrump, NV 89048  
llacy@co.nye.nv.us

Michael L. Elliott  
Cultural Resources Specialist  
National Trails Intermountain Region  
National Park Service  
P.O. Box 728  
Santa Fe, NM 87504-0728  
Michael\_Elliott@nps.gov

Larry Levy, Fire Chief  
Southern Inyo  
Fire Protection District  
P.O. Box 51  
Tecopa, CA 92389  
sifpd@yahoo.com

**ENERGY COMMISSION –  
PUBLIC ADVISER**

Blake Roberts  
Assistant Public Adviser  
publicadviser@energy.ca.gov

**COMMISSION DOCKET UNIT**

California Energy Commission  
– Docket Unit  
Attn: Docket No. 11-AFC-02  
1516 Ninth Street, MS-4  
Sacramento, CA 95814-5512  
docket@energy.ca.gov

**OTHER ENERGY COMMISSION  
PARTICIPANTS (LISTED FOR  
CONVENIENCE ONLY):**

*After docketing, the Docket Unit  
will provide a copy to the persons listed  
below. Do not send copies of  
documents to these persons  
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so.*

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Commissioner and Presiding Member

TBD  
Commissioner and Associate Member

Ken Celli  
Hearing Adviser

Galen Lemei  
Adviser to Commissioner Douglas

Jennifer Nelson  
Adviser to Commissioner Douglas

TBD  
Adviser to Associate Member

Eileen Allen  
Commissioners' Technical  
Adviser for Facility Siting

Mike Monasmith  
Senior Project Manager

Richard Ratliff  
Staff Counsel IV

Kerry Willis  
Staff Counsel

### DECLARATION OF SERVICE

I, Lisa Belenky, declare that on February 4, 2013, I served and filed copies of the attached Opening Testimony of Intervenor Center for Biological Diversity, dated February 4, 2013. This document is accompanied by the most recent Proof of Service, which I copied from the web page for this project at:  
<http://www.energy.ca.gov/sitingcases/hiddenhills/>.

The document has been sent to the other persons on the Service List above in the following manner:

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I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am over the age of 18 years.

Dated: February 4, 2013

/s/Lisa Belenky