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STATE OF CALIFORNIA

**Energy Resources Conservation
and Development Commission**

In the Matter of:

APPLICATION FOR CERTIFICATION
FOR THE PALEN SOLAR POWER
PROJECT

DOCKET NO. 09-AFC-7C

CENTER FOR BIOLOGICAL DIVERSITY

OPENING TESTIMONY AND EXHIBIT LIST

Exhibit 3000

October 16, 2013

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INTRODUCTION

Intervenor Center for Biological Diversity (the “Center”) timely provides this Opening Testimony regarding the application for certification of the proposed amended Palen Solar Power Project.

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 Public Lands Desert Director Ileene Anderson assisted in compiling this testimony and the documents submitted. All exhibit referenced in the opening testimony are filed concurrently with this testimony or are CEC documents for which official notice is proper and requested. A complete Exhibit List will be provided with the Center’s Pre-hearing Conference Statement scheduled to be submitted on October 22, 2013.

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.

Incorporation of All Testimony and Exhibits from Original Proceeding

The Center for Biological Diversity also reserves the right to rely on all exhibits and Testimony filed for the earlier hearings in this matter.

- Opening Testimony submitted October 6, 2010

Exhibits #600-639, 669-670 (Testimony of Bill Powers, P.E., Regarding Alternatives and Exhibits)

Exhibits #640-668 (Testimony of Ileene Anderson Re: Impacts to Sensitive Plants and Wildlife, and Exhibits)

- Additional Documents Cited in Testimony: Official Noticed

Energy Action Plan I: http://www.energy.ca.gov/energy_action_plan/2003-05-08_ACTION_PLAN.PDF

Energy Action Plan II: http://www.energy.ca.gov/energy_action_plan/2005-09-21_EAP2_FINAL.PDF

CEC, 2009 *Integrated Energy Policy Report (IEPR) – Final Committee Report*, December 2009. <http://www.energy.ca.gov/2009publications/CEC-100-2009-003/CEC-100-2009-003-CMF.PDF>

CEC, 2007 *Integrated Energy Policy Report*, December 2007

<http://www.energy.ca.gov/2007publications/CEC-100-2007-008/CEC-100-2007-008-CMF.PDF>

CEC, Large Solar Energy Projects webpage:

<http://www.energy.ca.gov/siting/solar/index.html>

CALIFORNIA ROOFTOP PHOTOVOLTAIC (PV) RESOURCE

ASSESSMENT AND GROWTH POTENTIAL BY COUNTY, Navigant for CEC, September 2007 CEC-500-2007-048

<http://www.energy.ca.gov/2007publications/CEC-500-2007-048/CEC-500-2007-048.PDF>

RETI, *Phase 1A Final Report*, August 2008, Appendix B,

<http://www.energy.ca.gov/2008publications/RETI-1000-2008-002/RETI-1000-2008-002-F.PDF>

Renewable Energy Transmission Initiative, *RETI Phase 1B Final Report*, January 2009, [http://www.energy.ca.gov/2008publications/RETI-1000-2008-](http://www.energy.ca.gov/2008publications/RETI-1000-2008-003/RETI-1000-2008-003-F.PDF)

[003/RETI-1000-2008-003-F.PDF](http://www.energy.ca.gov/2008publications/RETI-1000-2008-003/RETI-1000-2008-003-F.PDF)

RETI, *Phase 2B Final Report*, May 2010,

<http://www.energy.ca.gov/2010publications/RETI-1000-2010-002/RETI-1000-2010-002-F.PDF>

CEC, Chula Vista Energy Upgrade Project - Application for Certification (07-AFC-4)

San Diego County, *Final Commission Decision*, June 2009.

<http://www.energy.ca.gov/2009publications/CEC-800-2009-001/CEC-800-2009-001-CMF.PDF>

CEC, *Strategic Transmission Investment Plan*, November 2005,

<http://www.energy.ca.gov/2005publications/CEC-100-2005-006/CEC-100-2005-006-CTD.PDF>

The Center reincorporates all documents and earlier testimony in this matter as though fully set forth herein.

OPENING TESTIMONY SUBMITTED FOR REVISED PROJECT PROPOSAL

- 1. Testimony of Ileene Anderson Re: Impacts to Sensitive Plants and Wildlife, from the Proposed Palen Solar Power Project, Declaration, and Resume**
- 2. Testimony of Pat Flanagan, Declaration and CV**
- 3. Testimony of Alan Muth, Declaration and CV**

EXHIBIT LIST

Intervenor Center for Biological Diversity's Exhibits No. 3000-3051

Doc. No. Author and title

Exhibit 3000:

Exhibit 3001: Testimony of Ileene Anderson Re: Impacts to Sensitive Plants and Wildlife from the Proposed Palen Solar Electric Generating System, Declaration, and Resume

Exhibit 3002: Lovich, J.E, and J.R. Ennen 2011. Wildlife Conservation and Solar Energy Development in the Desert Southwest, United States. *BioScience* 61(12): 982-992.

Exhibit 3003: Moilanen, A., A.J.A. van Teeffelen, Y. Ben-Haim and S. Ferrier. 2008. How much compensation is enough? A framework for incorporating uncertainty and time discounting when calculating offset ratios for impacted habitat. *Restoration Ecology* 17(4): 470-478.

Exhibit 3004: Norton, D.A. 2008. Biodiversity offsets: two New Zealand case studies and an assessment framework. *Environmental Management* 43(4):698-706

Exhibit 3005 USFWS (U.S. Fish and Wildlife Service) 2009a. Preparing for any action that may occur within the range of the Mojave Desert Tortoise (*Gopherus agassizii*). Pgs. 16.

Exhibit 3006: USFWS (U.S. Fish and Wildlife Service) 2009b. 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 3007: USFWS (U.S. Fish and Wildlife Service) 2012. DRAFT Range-wide Monitoring of the Mojave Desert Tortoise (*Gopherus agassizii*): 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 3008: 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 3009: 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 3010: Figure 8, Desert Tortoise Records, ISEGS monitoring, Perimeter Recipient Sites for Stateline Solar Farm Project. 1 page.

Exhibit 3011: Esque, T.C., K.E. Nussear, K.K. Drake, A.D. Walde, K.H. Berry, R.C. Averill-Murray, A. P. 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. <http://www.int-res.com/articles/esr2010/12/n012p167.pdf>

Exhibit 3012 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 3013 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 3014 County of Kern 2012. Wind Applications and Authorizations. Pgs. 3.
http://www.co.kern.ca.us/planning/pdfs/renewable/wind_projects.pdf

Exhibit 3015 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 3016: Sahagun, L. 2012. Canine distemper in kit foxes spreads in Mojave Desert. *Los Angeles Times*. April 18, 2012.
<http://articles.latimes.com/2012/apr/18/local/la-me-0418-foxes-distemper-20120418>

Exhibit 3017: USFWS 2006. Five year review: Yuma Clapper Rail. Pgs. 29.

- Exhibit 3018:** USFWS 1983. Yuma Clapper Rail Recovery Plan. U.S. Fish and Wildlife Service, Albuquerque, New Mexico. Pgs. 51.
- Exhibit 3019:** EBird – Hotspot Checklist – Lake Tamarisk Golf Course 10-15-2013.
<http://ebird.org/ebird/hotspot/L419660?m=&yr=all&changeDate=Set>
- Exhibit 3020:** Milsap, B.A, G. S. Zimmerman, J.R. Sauer, R.M. Nielson, M. Otto, E. Bjerre, R. Murphy. 2013. Golden Eagle Population Trends in the Western United States: 1968-2010. *Journal of Wildlife Management* 77 (7): 1436-1448.
- Exhibit 3021:** Kochert, M.N. and K.Steenhof. 2002. Golden Eagles in the U.S. and Canada: Status and Conservation Challenges. *Journal of Raptor Research* 36 (1 Supplement): 32-40.
http://aguilarealmexico.info/home_biblioteca/Conservacion/Conservaci%C2%A2n.%201-Golden%20Eagles%20in%20the%20US%20and%20Canada.pdf
- Exhibit 3022:** WRI (Wildlife Research Institute) 2011. Golden Eagle Survey Report for the Joshua Tree National Park in Riverside County, California. December 5, 2011. Pgs. 51
- Exhibit 3023:** BLM 2012. Appendix C.7. Desert Harvest DEIS. Winter Golden Eagle Survey Report for the Proposed Desert Harvest Solar Project Located in Unincorporated Riverside County. Prepared for Aspen Environmental Group. Prepared by Bloom Biological. Pgs. 20.
http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/palmsprings/desert_harvest_solar.Par.75447.File.dat/App_C07-C10.pdf
- Exhibit 3024:** (SCE) Southern California Edison 2011. Notice to Proceed Request for the Red Bluff Substation Project Distribution Line Analyzed in the Desert Sunlight Solar Farm Final Environmental Impact Statement and to be Constructed in conjunction with the Devers-Palo Verde No. 2 Transmission Line Project September 2011. Pgs. 46.
http://www.cpuc.ca.gov/environment/info/aspen/dpv2/ntps/NTPR05_RedBluff_091611.pdf
- Exhibit 3025:** Pagel, J.E., K.J. Kritz, B.A. Millsap, R.K. Murphy, E.L. Kershner and S. Covington. 2013. Bald Eagle and Golden Eagle Mortalities at Wind Energy Facilities in the Contiguous United States. *Journal of Raptor Research*, 47(3):311-315. <http://www.bioone.org/doi/full/10.3356/JRR-12-00019.1>
- Exhibit 3026:** 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 3027** 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 3028** 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 3029:** 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 3030:** Dunn, R.R. 2005. Modern Insect Extinctions, the Neglected Majority. Conservation Biology 19(4): 1030-1036.
- Exhibit 3031:** USFWS 2011. Final Rule: Determination of Endangered Status for Casey's June Beetle and Designation of Critical Habitat. Federal Register 76(184): 58954-58998.
- Exhibit 3032:** Wagner, W.D., R.L. McKernan, P.A. Flanagan and R.W. Schreiber. 1983. Wildlife Interactions at Solar One Facility, Daggett, California: Fall 1982 Interim Report. Section of Ornithology, Natural History Museum Foundation, Los Angeles County, Los Angeles County, California 90007. September 1983. Pgs. 33
- Exhibit 3033:** Belnap, J. 2006. The potential roles of biological soil crusts in dryland hydrologic cycles. Hydrologic Processes 20: 3159-3178.
- Exhibit 3034:** 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 :3035:** 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 3036:** Biological Resources Impact-Minimization Alternative. Pg. 1.

- Exhibit 3037:** Testimony of Pat Flanagan Re: Impacts to Sensitive Wildlife and Ecosystems from the Proposed Palen Solar Electric Generating System, Declaration, and Resume.
- Exhibit 3038:** Salton Sea Bird Banding Frequency Locations Metadata Files and Results Map.
http://www.spatial.redlands.edu/salton/Downloads/Shapefiles/Metadata/ss_birband_locations_metadata.htm
- Exhibit 3039:** C.A. Howell and S.D. Veloz. 2011. Priority areas for Breeding Birds within the Planning Area of the Desert Renewable Energy Conservation Plan. PRBO Technical Report. PRBO contribution #1823.
<http://www.prbo.org/cms/574>
- Exhibit 3040:** Penrod, K., P. Beier, E. Garding, and C. Cabañero. 2012. A Linkage Network for the California Deserts. Produced for the Bureau of Land Management and The Wildlands Conservancy. Produced by Science and Collaboration for Connected Wildlands, Fair Oaks, CA
www.scwildlands.org and Northern Arizona University, Flagstaff, Arizona <http://oak.ucc.nau.edu/pb1/>
- Exhibit 3041:** Beier, P. and B. Brost 2010. Use of Land Facets to Plan for Climate Change: Conserving the Arenas, Not the Actors. Conservation Biology 24(3):701-710 <https://oak.ucc.nau.edu/pb1/vitae/Beier-Brost.2010.ConservingArenas.pdf>
- Exhibit 3042:** Brost, B.M. and P. Beier. 2012. Use of Land Facets to Design Linkages for Climate Change. Ecological Applications 22(1):87-103.
<http://oak.ucc.nau.edu/pb1/vitae/Brost-Beier.2012.LandFacetCorridors.pdf>
- Exhibit 3043:** Figure 23. Mojave Preserve-Stepladder Turtle Mountains Land Facet Map. 1pg.
- Exhibit 3044:** Figure 24. Stepladder Turtle Mountains – Palen McCoy Mountains Land Facet Map. 1 pg.
- Exhibit 3045:** Figure 25. Palen McCoy Mountains – Whipple Mountains Land Facet Map. 1 pg.
- Exhibit 3046:** Figure 26. Joshua Tree National Park - Palen McCoy Mountains Land Facet Map. 1 pg.
- Exhibit 3047:** Figure 28. Palen McCoy Mountains – Chocolate Mountains Land Facet Map. 1 pg.
- Exhibit 3048:** Figure 9. Desert Tortoise Least Cost Corridor Map. 1 pg.

Exhibit 3049: Figure 32. Preliminary Linkage Network - CA Deserts Land Facet Map. 1 pg.

Exhibit 3050: Testimony of Alan Muth

Exhibit 3051: October 16, 2013, Calif.'s famous 'duck chart' is outdated, experts say, E&E News

Additional Documents Cited in Testimony: Official Notice Requested

Kit Fox Den Activity Map: http://docketpublic.energy.ca.gov/PublicDocuments/09-AFC-07C/TN200466_20130913T104933_Kit_Fox_Den_Activity_Map_September_2013.pdf

Email from Jaime Rudd re: Palen Updated Map:
http://docketpublic.energy.ca.gov/PublicDocuments/09-AFC-07C/TN200467_20130913T104933_Email_from_Jaime_Rudd_re_Palen_Updated_Map.pdf

CEC 2010. California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development. <http://www.energy.ca.gov/2007publications/CEC-700-2007-008/CEC-700-2007-008-CMF.PDF>

CEC Record of Conversation:
http://www.energy.ca.gov/sitingcases/palen/compliance/2013-07-08_Record_of_Conversation-REAT_Number_10_TN-71593.pdf

Due Diligence Request for Information to Palen Solar Holdings from US Department of the Interior, Bureau of Land Management http://docketpublic.energy.ca.gov/PublicDocuments/09-AFC-07C/TN200531_20130919T112340_Notice_to_Charles_TurlinskiPSH_LLC_re_Due_Diligence_Request_for.pdf

USFWS email to Pete Bloom in re: Palen Helo GOEA Nest Survey Flights
http://docketpublic.energy.ca.gov/PublicDocuments/09-AFC-07C/TN200106_20130801T113723_USFWS_email_to_Pete_Bloom_in_re_Palen_Helo_GOEA_Nest_Survey_Fli.pdf

Avian Mortality Report. http://docketpublic.energy.ca.gov/PublicDocuments/07-AFC-05C/TN200642_20130930T090221_Avian_Mortality_Report_912013.xlsx

CEC 2010. Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California. <http://www.dfg.ca.gov/wildlife/nongame/docs/SwainsonsHawkProtocol6-2-10.pdf>

HHSEGS FSA <http://docketpublic.energy.ca.gov/PublicDocuments/Regulatory/11-AFC-2%20Hidden%20Hills/2012/DEC/TN%2068953%2012-21-12%20Final%20Staff%20Assessment.pdf>

Respectfully submitted,

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