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STATE OF CALIFORNIA

Energy Resources Conservation and Development Commission

In the Matter of:

APPLICATION FOR CERTIFICATION FOR THE PALEN SOLAR ENERGY GENERATING SYSTEM

DOCKET NO. 09-AFC-7C

INTERVENOR CENTER FOR BIOLOGICAL DIVERSITY

Exhibit 3142

Rebuttal Testimony of Gordon Pratt PhD

Re: Impacts to Flying Invertebrates (Insects) from the Proposed Palen Solar Electric Generating System

Docket 09-AFC-7

Staff briefly discusses invertebrates in the Supplemental Staff Assessment at 14-15. Staff correctly notes that "Microphyll woodlands, ephemeral washes, agricultural practices, and artificial water sources are present on and adjacent the PSEGS site and would be expected to support a variety of insects" but fails to acknowledge the unique insect communities found in the sand dunes habitats on site.

While I agree with Staff that collection and review of insect mortality data is needed, I disagree with Staff's implication that such data collection should be part of the monitoring and conditions of certification or that impacts cannot now be identified and assessed.

First, many of the suggested actions and evaluations can be undertaken now, before any project approval, including:

- Identify if state or federally protected insects are subject to mortality;
- Identify if insects subject to mortality are attracted to polarized light;
- Evaluate the risk to declining species such as monarch butterflies ...;
- Conducting multi season surveys to account for seasonal variations in insect populations and assemblages;

- Perform surveys in off-site locations in up and downwind areas; and
- Account for the irruptive ecology /of most insects by performing surveys during normal or above average rain years.

Second, surveys and analysis should be a prerequisite to certifying this amendment for two power towers. Although data is just beginning to be collected at the existing power towers at ISEGS (and additional data could be collected at the recently constructed Crescent Dunes power tower in Nevada) there is some information and that can be analyzed. For example, my colleague Greg Ballmer took the photo submitted concurrently as Exhibit #3143, which he and I believe shows the smoke of insects burning at the Ivanpah Solar Thermal Facility south of Las Vegas, which is similar to the one proposed for the Palen Solar Energy Generating System. Studies could be designed to determine those species killed and ways to prevent those species from being killed by the Solar Energy Generating System.

Going forward data from already constructed power towers should projects could provide very important information about how project design affects invertebrates in addition to provide a "venues" for testing various deterrent, avoidance, and minimization measures.

Declaration of Gordon Pratt PhD

Rebuttal Testimony

I, Gordon Pratt, declare as follows:

- 1) I am currently a research associate with the University of California, Riverside where I conduct research on endangered butterflies and insect diversities on military installations.
- 2) My relevant professional qualifications and experience are set forth in the resume and the opening testimony filed on June 23, 2014, and are incorporated herein by reference.
- 3) I prepared the rebuttal testimony attached hereto and incorporated herein by reference, relating to the impacts of the proposed project on flying invertebrates (insects).
- 4) I prepared the testimony attached hereto and incorporated herein by reference relating to the proposed Palen Solar Electric Generating System in the Chuckwalla Valley in Riverside County.
- 5) It is my professional opinion that the attached testimony is true and accurate with respect to the issues that is addressed.
- 6) I am personally familiar with the facts and conclusions described within the attached testimony and if called as a witness, I could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: July 17, 2014

Signed: Hordon F. Fratt

At: 6 miles south of Anza, Riverside County, California

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