

<https://outrunchange.com/2015/06/16/why-solar-thermal-farms-are-accurately-called-wing-toasters-ivahpah-offs-an-estimated-3500-birds-a-year/>

Outrun Change

We need to learn quickly to keep up with the massive change around us so we don't get run over. We need to outrun change.

16 JUN 2015

1 *Comment*

Why solar-thermal farms are accurately called wing-toasters – Ivahpah offs an estimated 3,500 birds a year.



<https://outrunchange.files.wordpress.com/2015/06/solar-17-6-14.jpg>

(Wing toaster portion of a wing-toasting facility in operation. Top of the tower is where the protected, migratory, and other birds get cooked. The white-hot section is around 750 degrees. Photo by James Ulvog.)

A detailed study of bird casualties estimates the Ivanpah Solar Electric Generating System kills about 3,500 birds a year. This is while it is only generating at 40% of expected capacity (<https://outrunchange.com/2015/06/15/ivanpah-running-at-40-of-expected-output-while-killing-about-3500-birds-a-year/>).

4/22 – Chris Clarke at ReWire – *Solar Plant Likely Killed 3,500 Birds in 1st Year* (<http://www.kcet.org/news/redefine/rewire/solar/solar-plant-likely-killed-3500-birds-in-first-year.html>) – The Ivanpah facility hired a firm to research the number of birds killed at the location. The number of fatalities is in a range between 2,500 and 6,700 with a point estimate of 3,504.

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That is a range of 6.8 to 18.4 per day with point estimate of 9.6 each and every day.

That is in contrast to the facility's biologist's official count of 695 dead and eight injured birds. That would be an average of 1.9 casualties each day. Article reminds us the biologists only search 30% of the facility. Keep in mind they don't look for any of the streamers which multiple observers have reported seeing fall to the ground outside the perimeter.

The researchers conducted two tests to assess how many dead birds are carried off by scavengers and how many dead birds are missed by the biologists. Both results point to egregious undercounts in the official numbers.

"Scavenger bias" measures how many birds are eaten or carried off by scavengers. They found small birds can disappear within 14 hours. Keep in mind the biologists only search the grounds about every three or four weeks, based on their reports the two times I've actually browsed a report. That means a huge portion of birds will never get counted because the carcass is long gone when the biologists do their search. Kit foxes and ravens are out looking for food every day.

"Searcher bias" measures how many birds get missed by searchers. Their study shows a range of 40% up to 60% of carcasses are missed with results varying based on size of the bird and time of the year. That also means a large portion of birds don't get counted. I've never gone out intentionally searching for dead birds, in the desert, that has been cleared of vegetation. Seems like missing half of what you are looking for is a rather poor result for trained scientists.

Mr. Clarke's article doesn't say whether the study fully adjusted for the get-around-to-it-once-every-three-week count or only searching 30% of the grounds or excluding streamers that survive long enough to land outside the perimeter.

I downloaded a copy of the 108 page report, which is available here (http://docketpublic.energy.ca.gov/PublicDocuments/07-AFC-05C/TN204258_20150420T145549_Ivanpah_Solar_Electric_Generating_System_Avian_Bat_Monitoring.pdf). I'll try to browse through it, but with a huge backlog of other articles tagged on my to-be-read list regarding the systemic devastation from wind and solar power, don't know when I will be able to get to that one.

I've discussed the systemic undercount earlier. See this pos (<https://outrunchange.com/2014/08/25/does-the-ivanpah-solar-facility-toast-642-or-28000-birds-a-year-solar-24/>). An ecologist did a back-of-the-envelope calculation of the bird fatalities at Ivanpah. His rough guess was 28,000. The current report, with the researcher selected and paid by Ivanpah, proves the back-of-the-envelope calculation cannot be arbitrarily dismissed. It is closer to the likely real tally than the official count.

Whether somewhere between 2,500 and 6,700 or as high as 28,000, the number of birds killed at Ivanpah is unknown, but obviously radically higher than the official count. Keep in mind there is a long list of reasons the official tally is *structured* to undercount the toll.

As I've mentioned before, the official protocol makes me think the staff at Ivanpah have never heard of the admonition in my profession: *don't audit with your eyes closed*.

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One thought on “Why solar-thermal farms are accurately called wing-toasters – Ivahpah offs an estimated 3,500 birds a year.”

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