

Google This: Billions in Federal Tax Dollars at Risk in Failing Solar Mirror Project

As millions observe Earth Day, taxpayers (and thousands of California birds) may have special reason to feel burned this year.



A \$2.2 billion solar electric generating facility, backed by a generous \$1.6 billion loan guarantee, more than \$400 million in grants from the U.S. Treasury and California ratepayer agreements, appears to be failing... badly.^{i ii iii}

The project is owned jointly by Google, Brightsource Energy and NRG. It covers more than 3,500 acres of public lands in the California desert, near the city of Ivanpah. The project uses 300,000 large mirrors directed at three 450 foot towers in order to produce

enough steam to power electric generating turbines. This is not to be confused with traditional solar panels which convert sunlight directly into electricity.

Solyndra scandal, Part II?

The \$787 billion stimulus package in 2009 played a major role in jumpstarting the Ivanpah solar power plant. In underscoring the federal government's important role in this project, the White House highlighted that the stimulus package "showered renewable energy with new funds" allowing Ivanpah's backers "more than a few sighs of relief." Ironically, it also paired the Ivanpah and the now-failed Solyndra projects as it promoted the impact on job growth.^{iv}

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Statement included in regulatory filing by Google.

Yet, much like the defunct, taxpayer backed Solyndra project, Ivanpah has fallen short of its goals and faces an uncertain future. The project is not meeting its earlier commitments for electricity generation to California utilities and the electricity it does generate is at a drastically higher cost than traditional utilities.^v A Wall Street Journal analysis revealed that "power from the two Ivanpah units that serve PG&E (a California utility) last year fetched about \$200 a megawatt-hour on average during summer months, and about \$135 a megawatt-hour on average the rest of the year." The Journal compares that "an average price of \$57 a megawatt-hour for solar power sold under contracts signed in 2015" and for natural gas generation at "\$35 a megawatt-hour on average in California's wholesale market last year."^{vi}

One of the investors notes that the project may be declared in “default” by one of its largest customers.^{vii} Indeed, the California Utility Commission recently granted the project a brief reprieve, giving “Ivanpah’s owners... until July 31 (2016) to meet ‘certain production requirements.’^{viii}

Perhaps most telling, one of the most recognizable investors in the project, included a note in a regulatory filing that “our company’s investment in very large solar-thermal technology may be a financial failure and even a technical failure.”^{ix}

Should this project fail, taxpayers could be forced to pay a steep price.

Environmental Concerns: “Birds Bursting Into Flames”^x

Sadly, the project has also resulted in a large number of bird deaths. The total number is unclear. One estimate indicates that more than 3,500 birds died on project grounds in its first year.^{xi} It appears one major cause of the deaths is the intense heat directed at the solar towers by surrounding mirrors. An official government report reveals that “staff noticed ...streams of smoke rise when an object [bird, bat, or insect] crosses the solar flux fields aimed at the tower. These “streamers” were observed on average every two minutes.”^{xii}



Bird recovered from Ivanpah site by U.S. Fish and Wildlife Service “with charring of feathers around the head, neck, wings and tail.”

While its owners dispute the exact number of deaths, a spokesman said that, “No one disputes that certain levels of concentrated solar flux present a risk to birds.”^{xiii}

Too Much Risk for Taxpayers?

Renewable energy projects offer great promise to protect and enhance our natural environment. Indeed, private investors are increasingly banking their futures on renewable energy projects around the nation. However, with massive projects like Solyndra and Ivanpah where taxpayers disproportionately bear the risk, we must examine whether our zeal for renewable energy is getting in the way of good common sense. Just as important, we must examine whether the investors who stand to benefit the most from these projects, should bear more of the risk.

ⁱ “Ivanpah Solar Project Reaches Halfway Mark and Peak of Construction Employment,” brightsourceenergy.com, BrightSource Energy, 6 August 2012, <http://www.brightsourceenergy.com/ivanpah-solar-project-reaches-halfway-mark-and-peak-of-construction-employment#.VxjrZ8fKU3R>.

ⁱⁱ Chernova, Yuliya, “Ivanpah Solar Project Owners Delay Repaying Loans, Documents Say,” wsj.com, The Wall Street Journal, 23 September 2014, <http://www.wsj.com/articles/ivanpah-solar-project-owners-delay-repaying-loans-documents-say-1411488730>.

ⁱⁱⁱ “Form 8k, NRG Energy Inc.,” sec.gov, United States Security Exchange Commission, 22 December 2014, <http://www.sec.gov/Archives/edgar/data/1013871/000101387114000026/form8-kx122314.htm>.

^{iv} “Promoting Clean, Renewable Energy: Investments in Wind and Solar,” whitehouse.gov, The White House, <https://www.whitehouse.gov/recovery/innovations/clean-renewable-energy>.

^v Blood, Michael, “Giant Ivanpah solar plant south of Las Vegas falls short,” reviewjournal.com, The Review Journal, Associated Press, 17 November 2014, <http://www.reviewjournal.com/business/energy/giant-ivanpah-solar-plant-south-las-vegas-falls-short>.

^{vi} Sweet, Cassandra, “Ivanpah Solar Plant May Be Forced to Shut Down,” wsj.com, The Wall Street Journal, 16 March 2016, <http://www.wsj.com/articles/ivanpah-solar-plant-may-be-forced-to-shut-down-1458170858>.

^{vii} Danelski, David, “Environment: Ivanpah solar plant falls short on production,” pe.com, The Press Enterprise, 17 December 2015, <http://www.pe.com/articles/plant-789644-power-energy.html>.

^{viii} Press-Enterprise Editorial, “Taxpayers pay price for Ivanpah ... again,” pe.com, The Press Enterprise, 18 March 2016, <http://www.pe.com/articles/plant-797446-ivanpah-energy.html>.

^{ix} “Google Inc. Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934,” sec.gov, United States Security Exchange Commission, 23 April 2015, http://www.sec.gov/Archives/edgar/data/1288776/000130817915000157/lgo02015_def14a.htm.

^x “Birds Bursting Into Flames Above Solar Farm Stirs Calls To Slow Expansion,” sanfrancisco.cbslocal.com, Associated Press, CBS, 18 August 2014, <http://sanfrancisco.cbslocal.com/2014/08/18/birds-bursting-into-flames-above-solar-farm-stirs-calls-to-slow-expansion-streamer-solar-field-central-valley-heat-streamer-fire-burn/>.

^{xi} Meier, James, “Report: Ivanpah solar project kills 3,500 birds,” desertsun.com, The Desert Sun, 23 April 2015, <http://www.desertsun.com/story/tech/science/greenenergy/2015/04/23/ivanpah-solar-plant-bird-deaths/26273353/>.

^{xii} Kagan, Rebecca A., Viner, Tabitha C., Trail, Pepper W., Espinoza, Edgard O., “Avian Mortality at Solar Energy Facilities in Southern California: A Preliminary Analysis,” docketpublic.energy.ca.gov, Center for Biological Diversity, National Fish and Wildlife Forensics Laboratory, 23 June 2014, http://docketpublic.energy.ca.gov/PublicDocuments/09-AFC-07C/TN202538_20140623T154647_Exh_3107_Kagan_et_al_2014.pdf.

^{xiii} Desmond, Joe, “Setting the Record Straight: Solar Flux and Impact to Avian Species,” brightsourceenergy.com, BrightSource Energy, 19 August 2014, <http://www.brightsourceenergy.com/setting-the-record-straight-solar-flux-and-impact-to-avian-species#.Vxj2GsfKU3R>.