

Unavoidable bird impacts could doom utility-scale Calif. project

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Two California energy commissioners are recommending against approving the Palen Solar Electric Generating System project because of unavoidable and significant impacts to birds, a major obstacle to the recently revived project left for dead two years ago.

The recommendation comes from two California Energy Commission (CEC) commissioners who presided over the state's review of the 500-megawatt Palen project. Their recommendation falls in line with CEC staff's earlier conclusion that the project likely cannot be built and operated without harming eagles and migratory birds in Southern California's Chuckwalla Valley.

The CEC and the Bureau of Land Management are conducting separate reviews of the Palen project, which if built would cover about 3,700 acres of BLM land in Riverside County and employ two 750-foot-tall towers and 170,000 heliostat mirrors that would move with the sun, heat up water and create steam to drive electric generators.

Project proponents BrightSource Energy Inc. and Abengoa SA are asking the CEC to amend an already approved version of the project to allow the companies to switch from the original solar trough technology to the power tower format.

The chief concern with the revised project is birds flying between the heliostat mirrors and the two towers could be burned, leading to significant injury or death -- a phenomenon referred to as "solar flux." The problem has been observed at the recently completed Ivanpah Solar Electric Generating System, also developed by BrightSource Energy, in neighboring San Bernardino County.

CEC Commissioner Karen Douglas acted as the "presiding member" of the commission in its review of the amended Palen project, with fellow Commissioner David Hochschild serving as associate member of the review. The recommendation by Douglas and Hochschild acknowledges that "currently there is insufficient scientifically deduced information about actual avian impacts from power tower solar flux."

But, they added, "other evidence in the record about avian species mortality from solar flux, including preliminary compliance monitoring information from the Ivanpah project, convinces us that the benefits of the [Palen] modified project do not outweigh its significant adverse environmental effects."

Thus, when comparing the "entire suite of benefits against its suite of impacts, we find that the impacts outweigh the benefits," they wrote.

The commissioners' recommendation, which is open for public review through Jan. 11, is not a final decision. The full, five-member commission appointed by the governor could still vote to override the denial recommendation and the analysis of the CEC staff if the commissioners decide the project's benefits reducing greenhouse gas emissions and meeting a state renewable portfolio standard outweigh the negative consequences.

The full commission is expected to take up the issue at a formal hearing next month, said Percy Della, a CEC spokesman in Sacramento.

The CEC could also let the project developers revise the project proposal. Indeed, the recommendation to deny notes that changing from power tower to photovoltaic technology is an "environmentally superior" alternative.

Jared Blanton, a spokesman for Oakland-based BrightSource Energy, said that the company is still reviewing the more-than-1,000-page recommendation document and that it hasn't "made a decision on next steps yet."

David Christy, a BLM spokesman in the California State Office in Sacramento, said the CEC's ultimate decision would not interfere with the agency's ongoing review of the Palen project.

BLM, which issued a draft supplemental environmental impact statement for the project in July, is set to issue a final EIS next month, Christy said.

The project could not be built without receiving approval from both BLM and the state.

"If the project proponent wanted to do something in response [to the CEC], that would be their decision," he said. "As far as the CEC decision affecting the BLM's decision, it doesn't."

Ongoing, contentious issue

The CEC commissioners' recommendation to deny the project is the latest obstacle in the ongoing effort to permit the \$2 billion Palen project, which would produce enough electricity to power roughly 170,000 homes and businesses.

The project was left for dead two years ago when the original proponent, Solar Trust of America LLC, went bankrupt just months after BLM had issued a final EIS in May 2011 clearing the way for final federal approval. BrightSource Energy last year purchased the rights to the Palen project at a bankruptcy auction.

BrightSource and Abengoa revised the project proposal to disturb about 3,700 acres -- far less than Solar Trust of America's original 2008 proposal, resulting in fewer impacts to federally protected Mojave Desert tortoises.

But the CEC in September, as part of a final staff assessment of the Palen project, released a report concluding that the project could have negative impacts on avian species, including bald and golden eagles, and that it is "uncertain" that these impacts can be avoided even if mitigation measures are adopted.

Direct impacts to bald and golden eagles include "potential mortality or disturbance during construction and operation" of the solar plant, according to the final staff assessment. Indirect impacts noted in the assessment include "collision, glare, electrocution, and death or injury from exposure to concentrated solar flux." It said "glare or heat" from the project's heliostat mirrors "may also adversely affect birds' use of the site."

The assessment noted that the direct impacts could be reduced to "less than significant" levels with mitigation, including the development of an "avian enhancement and conservation plan."

But the indirect impacts could remain significant.

"While the probability is uncertain, given that the site and surrounding areas are suitable bald and golden eagle foraging habitat, staff believes that operation of the [Palen] project could result in the take of bald or golden eagles, due either to collision with project facilities or to injury or mortality caused by flying through concentrated solar energy over the heliostat field," the assessment said. "No mechanism is currently available to allow staff to quantify potential mortality for bald or golden eagles, or any other avian species. Because they are fully protected species, any take of bald or golden eagles is prohibited by law. The burden is on the project owner to avoid any such take."

Overall, the construction and operation of the Palen solar plant as planned "would have cumulatively considerable impacts to many biological resources within the Chuckwalla Valley and the Northern and Eastern

Colorado Desert Coordinated Management Plan area," including desert tortoises and the Mojave fringe-toed lizard, a state-designated species of concern that is found only in the Southern California desert.

Environmentalists who have participated in public hearings and followed the Palen proceedings closely say they were pleased by the recommendation to deny the modified project.

Ileene Anderson, staff biologist for the Center for Biological Diversity in Los Angeles, called the recommendation an "important milestone" and praised the two commissioners for taking seriously the issue of solar flux.

Anderson said when she first brought up solar flux several years ago during the permitting of the Ivanpah solar plant, state regulators "looked at me like I was from another planet. There was no discussion about that as an impact for mitigation. So there's been an evolution on their part."

But Anderson said she would be watching closely to see what the full commission ultimately decides to do.

"I will be very interested to see what happens," she said.