Response to Comment Letter I49

Kevin Keane
February 11, 2014

I49-1 This comment is introductory in nature and does not raise an environmental issue.
The County acknowledges the commenter’s concerns regarding strong winds and noise. Noise related to wind movement is created when wind passing over a surface causes the surface to vibrate. The trackers are rigid panels that are not prone to vibration, and therefore the solar installation would not be anticipated to increase noise levels generally associated with existing wind patterns in the region. Structural engineering for the tracker assemblies will account for wind loading factors based on climatological conditions in this region to avoid failure of project components under strong wind conditions. Rocks and debris in heavy winds are generally entrained in the airflow close to the ground, which typically would occur beneath the elevation of the tracker panels, thereby avoiding most of the potential for damage from wind-driven materials. Potential noise and damage from a solar panel detached from its mounting and propelled by 100-mile-per-hour winds would be speculative, and beyond the scope of reasonableness for the Draft Program Environmental Impact Report (DPEIR) analysis. As indicated in response to comment I42-2, wind speeds at the Proposed Project sites would exceed 15 miles per hour approximately 6.5% of the time based on proprietary data from a meteorological testing (MET) station located on site that has been operational since August 2012. As described in Section 1.0 of the DPEIR, each tracker would be mounted on a 28-inch steel mast and
would be installed taking into consideration wind loading and soil conditions at the site. Specifically, the masts would be installed by either (1) inserting the mast into a hole up to 20 feet deep and encasing it in concrete, (2) vibrating the mast into the ground up to 20 feet deep, or (3) attaching the mast to a concrete foundation sized to adequately support the trackers. In addition, trackers would be positioned in a horizontal “stow” mode during any high wind condition. Based on the wind data, trackers would go into horizontal “stow” mode (for high winds) approximately 0.01% of the time. The wind speed at which a tracker would go into “stow” mode ranges from 14 meter per second (m/s) to 18 m/s, which equates to approximately 30 miles per hour (mph) to 40 mph. Based on the environmental analysis, it has been determined that the solar trackers would pose a danger to nearby residents during wind storms.

The County acknowledges the commenter’s concerns regarding helicopter overflights. Helicopter noise impacts were evaluated in the DPEIR (see Section 2.6, Noise). With the implementation of mitigation, it was determined that noise impacts, including from helicopter noise, would be less than significant. Refer to mitigation measures M-N-TDS-2 AND M-N-TDS-5 regarding the control of helicopter noise. However, frequency and duration must also be considered in the context of potential annoyance level from helicopter...
HEAT
The EIR does not include an analysis of the impact from heat dissipation from the concentrated photovoltaic elements. Currently, without the solar system, much of this heat is generally absorbed by the ground during the daytime, and slowly released during the night. The CPV elements require cooling to be immediately; the collected heat has to be radiated away from heat sinks during the daytime. Given the massive scale of the proposed projects, many megawatts of heat have to be disposed of — probably approximately 1.5 W for each 1 W of power generated.
Thus, in order to generate 60 MW (Tierra Del Sol) to 80 MW (Rugged), during the daytime, the facilities have to dissipate, conservatively estimated, 90 MW and 120 MW in heat, respectively.

Hot air rises. How does adding such a large amount of energy to a relatively small site affect local wind patterns or cause other changes to the microclimate? Will it cause additional evaporation, and will it contribute to, or reduce the amount of local rain fall?

Rising hot air in our area often causes dust devils; some neighbors have reported dramatic damage from them, such as terrace barn roofs.

Will the wind caused by the rising air potentially fan any flames in case of a wild fire or fire in the facility?

TELECOMMUNICATION
The proposed projects will require phone and data connections for telemetrics, security, and other purposes.
Boulevard is notoriously underserved in terms of telecommunications. Currently, landline phone service is the only form of telecommunication available to residents - and AT&T plans to discontinue landline phone service nationwide within the next six years.

What types of communication lines will Soo tex have to install for the proposed projects? How many miles of fiber optic cable (or other media) will be installed?
Will wireless communication be used, and if so, what will be impact of radiation from the wireless communications?
What will be the environmental impact from these lines during construction, and during operation?
As mitigation, will residents be able to benefit from any new telecom facilities?

Sincerely,

Kevin Reese
Boulevard Home Owner
However, this phenomenon occurs naturally now and would not be expected to be different with the Proposed Project in place. The difference with the Proposed Project is that native fuel sources would no longer be available to an advancing wildfire, resulting in reduced fire spread rates, reduced fire intensity, and reduced flame lengths at the perimeter and throughout the Proposed Project site.

Communication lines installed as part of the Proposed Project would include a telecom wire underslung on the gen-tie. No other telecom facilities would be installed. Potential environmental impacts from the telecom wire are considered and addressed throughout the DPEIR as part of the gen-tie construction and operation (for example, see Section 2.3 for a discussion of potential impacts related to electrocution and/or collisions by special-status bird or bat species). As described in Section 1.0 of the DPEIR, the Proposed Project would be monitored off site through a supervisory control and data acquisition (SCADA) system. The commenter is referred to the response to comment I38-10 with regards to potential impacts from radio frequency radiation (RFR). The provision of telecommunications service is limited to those utilities regulated by the California Public Utilities Commission.
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