

**DOCKETED**

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**Ivanpah Solar Electric Generating System (Ivanpah)  
Avian & Bat Technical Advisory Committee (TAC) Meeting**  
February 15, 2018 – Meeting Notes

**TAC Meeting on February 15, 2018 at the California Energy Commission**

**TAC Members**

Present: Eric Knight – TAC Co-Chair – CEC

Via Teleconference: Mike Ahrens – TAC Co-Chair – BLM  
Thomas Leeman – TAC Member – USFWS  
George Piantka – TAC Member - Solar Partners I, II and VIII,  
LLC  
Magdalena Rodriguez - TAC Member – CDFW  
Mitch Samuelian – TAC Member – NRG

Invited Guests Present: Tim Sisk – Solar Partners I, II and VIII, LLC  
Jon Hilliard – CEC Biologist  
Marc Sydnor – Sydnor and Associates, Inc.

Via Teleconference: Daniel Riser-Espinoza – WEST, Inc.  
Karl Kosciuch – WEST, Inc.

**Introductions**

- Attendee introductions (TAC members and invited guests).

**Review of Agenda –**

- Agenda items reviewed – no changes.
- TAC December 18<sup>th</sup> and 21st Meeting Notes reviewed – a few minor typographical errors need to be corrected; otherwise, no comments from the TAC; notes to be finalized and docketed.

**Follow-up Items:**

- Final Winter Report (2016-2017), Spring Report 2017, Summer Report 2017 and the September 2017 TAC Notes will be sent to the TAC for docketing.  
Item Complete – all items docketed.
- High-medium-low assessment methodology to be included in the Annual Report and as an appendix to the Avian and Bat Mitigation and Monitoring Plan (Plan) revision 14.  
Item Complete – See the Annual Report Section 5 and Appendix D in the revised Plan.
- Provide memorandum to TAC describing survey methods and training of the operational staff proposed under revision 14.  
Item Complete – Provided to the TAC on December 20<sup>th</sup>, 2017.
- Include monitoring datasheets as an appendix to revised Plan.  
Item Complete – See the revised Plan Appendix C.
- Include a summary of the deterrence measures in revised Plan.

- Item Complete – See the revised Plan Appendix E.
- Include educational materials that will be provided to the onsite searchers in revised Plan.  
Item Complete – See Appendix A of revised Plan.
- Include training log forms in revised Plan.  
Item Complete – See Appendix B of revised Plan.
- Include a searcher efficiency trial for the on-site searchers in revised Plan.  
Item Complete – See Section 2.1.2 of the revised Plan (Page 8 Paragraph 3).
- Include 14-day search intervals and consider the weather conditions in revised Plan.  
Item Complete – See Section 2.1.2 of the revised Plan (Table 1).
- Include building and structure search continuity in revised Plan.  
Item Complete – See Section 2.1.2 of the revised Plan (Page 9 Paragraph 1).
- Include using markers to cover carcasses and prevention of scavenging when the location of the carcasses permits covering in revised Plan.  
Item Complete – See Section 2.1.3 of the revised Plan (Page 12, paragraph 1).
- A follow-up teleconference/webex will be held to discuss the final approval of Revision 14 of the Plan.  
Item Complete – Meeting held December 21<sup>st</sup>, 2017 via teleconference.
- TAC will send written authorization to proceed with the field program per the proposed Revision 14.  
Item Complete – CEC, BLM approval sent via email on December 21<sup>st</sup>, 2017, USFWS concurrence with Plan (subject to revisions, see above) sent via email on December 21<sup>st</sup>; CDFW approval (subject to revisions, see above) sent via email on December 28<sup>th</sup>, 2017.

**Update on Transition to Operational Monitoring:**

- Solar Partners presented an overview of the current status of the transition to operational monitoring.
- Surveys have been conducted by WEST to date.
- First operator training held on February 13<sup>th</sup> and a second session with additional operators scheduled for February 15<sup>th</sup>, 2018.
- Eight operators participated in the first training session with the Designated Biologist.
- The training session was led by avian biologists from WEST that have been conducting the surveys for the past three years.
- WEST instructors described the permits and data collection – explaining the permits, the communication protocols, and reporting processes.
- In addition, the instructors presented pictures and specimens of actual detections to show what can be found in the surveys.
- Specific training was provided for feather spot detections and descriptions of what constitutes a feather spot detection.
- Following the classroom training session, a field training session was conducted.
- Operators were trained in how to mark detections, contact the Designated Biologist, and how to inspect the ACC, and other facilities within the powerblock.
- Marker cones were staged within the powerblock and ACC to mark the detections, these detections are also marked on a map as part of the documentation.
- Designated Biologist placed trial carcasses and the operators did find the placed carcasses.

- Two hours were spent in training throughout the powerblock and Inner HD area.
- The first operator lead survey will be conducted on February 27<sup>th</sup>. Operators will be “shadowed” by a biologist on this survey to assess survey performance. Future surveys may be shadowed depending on the results of this initial survey.

### **TAC Discussion**

- TAC discussed agency attendance for the surveys. Solar Partners stated that the agencies have an open invitation to attend surveys.
- NRG is transitioning some renewable energy assets to another company. The Ivanpah facility is remaining under Solar Partners LLC ownership. Mitch Samuelian will be transitioning from the TAC and Solar Partners will be naming a new TAC member.

### **Presentation by WEST of Avian Fall Report:**

- Fall monitoring extended from August 18 to October 20, 2017.
- Search area for fall was 100% of the tower area.
- Bias trials for searcher efficiency and small bird carcass persistence were conducted.
- Searcher efficiency results exceeded the Plan assumptions.
- No obvious temporal pattern in detections was observed in the tower area. Birdcast radar migration data did not indicate elevated migration activity in the Mojave Desert.
- Per the Plan, mortality was considered “low,” which means “estimated avian mortality or injury levels that have minimal or no potential to negatively affect local, regional, or nation populations within a particular species or group of species.”

### **TAC Discussion:**

- TAC discussed the amount of the facility that is monitored with the tower area only. WEST indicated that approximately 8% is monitored.

### **Follow-up Items:**

- None

### **Presentation by WEST of the Annual Report:**

- The Year Four report covers December 16<sup>th</sup>, 2016 to December 15<sup>th</sup>, 2017 and provides reporting based on the biologically informed monitoring seasons as determined in Year 2.
- Monitoring included 100% of tower area for the full year and 20% of the heliostat area in Unit 2 during the Winter and Spring seasons; heliostat area monitoring was discontinued in Summer based on TAC approval.
- Bias trials were conducted throughout the year.
- Persistence trials for small birds were also conducted throughout the year.
- Consistent with previous years, detections in the tower area were highest in the fall, followed by spring, summer and winter.
- Annual avian detections and corresponding estimates of mortality were “low.”
- WEST explained the determination of “low, medium and high” is made by comparing species mortality to the species population at the national, regional and local levels. Since Ivanpah is a single location and not a class of infrastructure (like power lines), it is unlikely to affect populations at the national or regional (i.e., Bird Conservation Region

(BCR) 33) level. Therefore, the analysis focused on local populations, which are defined by the genetic flow through populations and natal dispersal.

- WEST presented an example calculation of the local area population. The estimated area of dispersal and genetic flow for the species is a radius of 40 km from the facility. The area within a 40-km radius is 5000 km<sup>2</sup> and the species density for each species is derived from Partners in Flight population data. Using this data, the local population within the 40-km radius can be estimated. Using the estimated mortality data from Ivanpah, the percent of mortality within resident species is less than 1/10<sup>th</sup> of 1%. For comparison, these mortality levels are much lower than management levels for game bird (15%) or bald eagle local populations (5%).
- Per the Plan, the mortality was considered “low,” which means “estimated avian mortality or injury levels that have minimal or no potential to negatively affect local, regional, or nation populations within a particular species or group of species.”

**TAC Discussion:**

- TAC discussed why searcher efficiency is greater for a feather spot than small birds. WEST explained that feather spots are actually easier to see, since they move in the wind.
- The TAC discussed whether a comparison of the previous tower area estimates is provided in the report. WEST stated that a comparison is presented in the report.
- TAC discussed the potential cumulative effects of local avian mortality in the region. WEST stated that a cursory literature did not show other mortality data in BCR 33.

**Follow-up Items:**

- TAC agency members agreed to review the revised Plan Revision 14 by March 1<sup>st</sup>, the Fall Report by March 14<sup>th</sup> and the Annual Report by March 30<sup>th</sup>.

**Next Meeting:**

TBD – 1<sup>st</sup> Quarter 2019.