DOCKETED	
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#### Ivanpah Solar Electric Generating System (Ivanpah) Avian & Bat Technical Advisory Committee (TAC) Meeting September 20, 2017 – Meeting Notes

#### TAC Meeting on September 20, 2017 at the California Energy Commission

TAC Members	
Present:	Eric Knight – TAC Co-Chair – CEC
	Thomas Leeman – TAC Member – USFWS
	Mitch Samuelian – TAC Member - NRG
Via Teleconference:	Magdalena Rodriguez - TAC Member – CDFW
	George Piantka – TAC Member - Solar Partners I, II and VIII, LLC
	Mike Ahrens – TAC Co-Chair – BLM
Invited Guests Present:	Tim Sisk – Solar Partners I, II and VIII, LLC
	Karl Kosciuch – WEST, Inc.
	Marc Sydnor – Sydnor and Associates, Inc.
Via Teleconference:	Daniel Riser-Espinoza – WEST, Inc.
	Katie Maikis - BLM Needles

#### Introductions

• Attendee introductions (TAC members and invited guests).

#### **Review of Agenda**

• Agenda items reviewed – no changes.

#### **Status of Prior Follow-up Items:**

- WEST to include the spatial analysis in the annual report including an explanation for factors within the generalized linear model and to consider detectability by season, year and location Spatial analysis completed; consideration of detectability ongoing.
- TAC to provide comments for Winter Report Item completed; comments received.
- WEST to revise the Winter Report Pending final submittal.

## TAC Discussion of Prior Follow-up Items:

• TAC discussed the incorporation of comments into reports. WEST indicated that all comments provided are incorporated into each subsequent report, if applicable, as the reports are revised.

## Follow-up Items:

- NRG to incorporate description of bat deterrence testing protocol and provide winter report revision by October 6<sup>th</sup> to the TAC.
- TAC to docket winter report when complete.

### Presentation by WEST of Avian Spring Report:

- Spring avian detections and corresponding estimates of mortality were markedly lower than in previous spring seasons.
- No obvious temporal pattern in detections was observed in the tower area or heliostat area.
- High confidence was associated with the tower area singed and collision estimates.
- Moderate confidence is associated with heliostat area known estimate and tower area unknown estimate.
- Low confidence was associated with the heliostat area unknown estimate.
- 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 the number of mortalities and requested clarification on whether the presentation contained detections or estimates. WEST clarified that the numbers presented are estimates.
- TAC discussed if there is correlation with the Cornell birdcast radar reports for migration. WEST indicated that the mortality does not generally seem to correlate well with the radar reports for migration.
- TAC discussed the general trend in estimates over the entire period of monitoring. WEST indicated that mortality for the entire facility was consistent during the first two years, increased in year three, and has so far shown a steep decline in year four. WEST stated the primary drivers of the increase in Year three are unknown cause detections.

# Follow-up Items:

• TAC comments on the Spring Report are to be provided to WEST by October 6<sup>th</sup>.

### **Presentation by WEST of the Summer Preview:**

- Tower area searches only; heliostat area searches discontinued per TAC directive.
- Overall, searcher and scavenger rates were within plan assumptions.
- Tower area estimates only will be presented in the Summer report.

# TAC Discussion:

• None

## **Follow-up Items:**

• None

## Presentation by NRG of the Year 5 and Ongoing Monitoring:

- NRG presented a summation of the requirements for the Avian & Bat Monitoring and Management Plan ("ABMMP" or "Plan"), the goals and accomplishments, risk levels and required responses and the proposal for life of project monitoring.
- The original Plan contemplated two years for study; four years of study have been conducted.
- The goals of the current Plan (ABMMP Version 13) were to identify risks from collision and solar flux, while providing a framework for management and response to risk.
- The patterns in the data have been consistent over the seasons and additional monitoring is not anticipated to revise these results.
- The management framework is specific within the Plan and states that if avian mortalities are deemed as "low" as defined in the plan, then no management response is required.
- The avian monitoring reports have shown consistent low risk (as defined in the ABMMP) for over three years.
- The facility is proposing to continue monitoring the project bi-weekly using onsite operators in conjunction with ongoing operations/monitoring and to report the results annually.
- A formal revision of the Plan will be submitted to the TAC for approval.

# **TAC Discussion:**

- TAC discussed if the deterrence measures at the site were undertaken voluntarily by NRG. NRG confirmed that all measures for avian deterrence were undertaken voluntarily by NRG.
- TAC discussed whether a Designated Biologist is required to be onsite or on call. NRG indicated that a Designated Biologist is required and the project has a biologist onsite 3-4 days per week. This arrangement will continue through life of project.
- TAC discussed whether operators will be formally trained to report detections. NRG stated that the operators will be formally trained as part of the monitoring going forward.
- TAC discussed the area of the surveys by operators. NRG stated that previous standardized searches will not be maintained, but the tower area and heliostat area will be included in the proposal. Specific surveys areas will be formalized for the operators and these details will be presented in the Plan revision to be submitted to the TAC. Avian fatality monitoring in accordance with the protocol to be approved by the TAC will be included in the operators annual Worker Environmental Awareness Program training and documented.
- TAC discussed how frequently the heliostats are washed. NRG indicated that the washing occurs once per year in the outer heliostats, and more frequently in the inner heliostats.
- TAC asked how species will be identified in the detections encountered by operators. NRG indicated that the Designated Biologist or onsite biologists, not the operators, will examine each carcass for species and cause of mortality.

- TAC discussed how to compare past and current data. NRG stated they would request WEST examine potential methods for comparison between formal surveys and operational surveys.
- TAC discussed potential triggers for TAC action related to data obtained under operational monitoring. NRG recommended maintaining the framework in the ABMMP for "high, medium and low" mortality levels.
- TAC discussed the bi-weekly proposal and personnel requirements. NRG stated these will be provided in the formal proposal.

# Follow-up Items:

- NRG to provide a formal proposal to TAC for ABMMP Revision 14 by October 1, 2017.
- WEST will consider how the formal and operational surveys may be compared to determine when elevated mortality levels may be occurring.
- TAC approval for the proposal is requested by October 15<sup>th</sup>.
- NRG will send TAC members a schedule for the remainder of the monitoring.

## Next Meeting:

December 18, 2017 – 12:00 noon at Sacramento