



June 13, 2022

Julianne Epplin
1901 Chouteau Avenue, MC 602
St. Louis, MO 63166-6149

Reference: High Prairie Spring Post-construction Monitoring Memo 2022

Dear Ms. Epplin,

Following is a seasonal summary containing the preliminary data and results of the spring 2022 post-construction monitoring at the High Prairie Renewable Energy Center (Project or High Prairie), owned and operated by Ameren Missouri (Ameren). The Project consists of 175 turbines with an approximate 400-megawatt (MW) operating capacity in Schuyler and Adair Counties, Missouri. As required by the Habitat Conservation Plan (HCP), this summary is due to the U.S. Fish and Wildlife Service (USFWS) and Missouri Department of Conservation (MDC) by June 15, 2022.

On May 14, 2021, an Incidental Take Permit (ITP) was issued for the federally-endangered Indiana bat (*Myotis sodalis*), federally-threatened northern long-eared bat (*Myotis septentrionalis*), and the little brown bat (*Myotis lucifugus*). The Indiana bat is also state-endangered and the northern long-eared bat is state-threatened, and both species are Species of Conservation Concern (SOCC) in Missouri. During the spring monitoring period (April 1, 2022 through May 15, 2022), Ameren voluntarily implemented avoidance measures and the wind turbines ceased operation on a daily basis from 45 minutes before sunset until 45 minutes after sunrise. In consultation with the United States Fish and Wildlife Service (USFWS) and the Missouri Department of Conservation (MDC), it was agreed that post-construction monitoring for bats need not occur during such curtailment periods (i.e., nighttime shut-down). Nevertheless, in order to provide relevant information for determining the appropriate search interval for post-construction monitoring once operations resume following implementation of deterrent and detection technologies, a carcass persistence trial was performed during April and May 2022, the methods and results of which are summarized herein.

Methods and Results

Carcass removal trials estimate the persistence time of bat carcasses on-site before scavengers remove them. Carcass persistence trials began on April 18, 2022 and included 40 mouse carcasses. Carcasses were checked daily for 4 days and then again on days 7, 14, and 35. No carcasses remained after 35 days.

GenEst models indicated that carcass persistence was best modeled using a Weibull distribution, and that the location parameter varied by plot type and scale parameter was constant. Carcass persistence averaged 5.1 days (90% CI: 3.5 to 7.4) on full plots and 2.5 days (90% CI: 1.7 to 3.7) on roads and pads.

Conclusion

No standardized post-construction monitoring occurred during the spring monitoring period, as the turbines were not operational at night during this time (i.e., fully curtailed from 45 minutes before sunset to 45 minutes after sunrise). Preliminary results from carcass persistence trials show a longer carcass persistence time than used for 2022 planning purposes (2.9 days on full plots and 2.2 days on roads and pads), and therefore no changes to the 2022 post-construction monitoring plan are proposed at this time.

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The next seasonal summary covering May 15 – August 15, 2022 will be submitted by September 15, 2022 and a fall seasonal summary covering August 16 – Oct 31, 2022 will be submitted by November 30, 2022. An annual report summarizing the 2022 post-construction monitoring will be provided by December 15, 2022 as required by the HCP. The annual report will include data summaries, Evidence of Absence parameters and analysis for the Covered Species, bat fatality estimates, Evidence of Absence estimates for the Covered Species, and a discussion of the full season monitoring results and its implications.

Regards,

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