

Version Date: August 5, 2024

Directions: Language in red is meant as directions for the Field Office and should be deleted in the final draft of the TAL. Language highlighted in blue should be selected as appropriate and include pertinent project-specific information

Please insert letterhead for FO

[Insert Date]

[First and Last Name]

[Title, Agency]

[Street Address]

[City, State Zip]

Subject: [Name of Project, County, State]

Technical Assistance Letter for Operational Avoidance for Tricolored Bat under Option 3 (Effective for [enter year(s)])

Dear [Title and Last Name]:

The U.S. Fish and Wildlife Service (Service) has been coordinating with [company name] on behalf of the [specific wind project company name (i.e., normally an LLC)] (Project) regarding their development of the [project name](Project), an approximately [size of facility in MW] wind energy facility in [location county(ies), state]. On [insert date], the Project requested the Service provide them with a technical assistance letter (TAL) documenting their compliance with the Endangered Species Act of 1973 (ESA; as amended) for the federally endangered tricolored bat (*Perimyotis subflavus*; TCB) following the Service's *Land-based Wind Energy Avoidance Guidance for the Tricolored Bat* (Guidance) (dated [insert guidance date]) using a real-time acoustic-activated curtailment approach (Option 3).

Section 9(a)(1)(B) of the ESA, 16 U.S.C. § 1538 (a)(1)(B), makes it unlawful for any person to “take” an endangered species. “Take” is defined by the ESA as to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct” 16 U.S.C. § 1532(19).

Note: Pre-construction surveys or post-construction bat summer surveys are optional in the following cases:

- 1) Project falls outside the current range of TCB found on the [Species Profile for Tricolored bat \(*Perimyotis subflavus*\) \(fws.gov\)](#). These projects do not need to complete summer surveys and we assume that TCB are not on the landscape during the summer. The Service does assume migratory risk for these projects if they fall within the wind range of TCB found here: [Land-based Wind Energy Voluntary Avoidance Guidance for the Tricolored Bat | U.S. Fish & Wildlife Service \(fws.gov\)](#),
- 2) Project is within a known summer occurrence record buffer and will assume presence for the project, or

3) Project will assume presence without any current occurrence records.

Use for projects with no summer risk because outside of the current range AOI.

No pre-construction surveys were completed of the project area because [insert project name] falls outside the current range of tricolored bat as found on the [Species Profile for Tricolored bat \(*Perimyotis subflavus*\) \(fws.gov\)](#). We therefore assume that tricolored bats are not on the landscape during the summer at this facility. In addition, the Service is not aware of any tricolored bat maternity colonies within 3-miles of the project area outlined in the Guidance and can operate during the summer risk periods [insert summer risk dates e.g., May 15- July 14] feathered below the Project's turbine(s) manufacturer's cut-in speeds.

Use for projects that assume summer risk without completing summer surveys:

No pre-construction surveys were completed of the project area because [insert project name] is within a known summer occurrence record buffer for tricolored bat. We therefore assume summer presence of tricolored bat and will implement the summer risk curtailment strategies in the Guidance. **OR**

No pre-construction surveys were completed of the project area because [insert project name] assumes that the facility has summer risk to tricolored bat and therefore will implement the summer risk curtailment strategies in the Guidance.

Use for projects with possible summer risk and that conducted pre-construction surveys. Survey results showed TCB presence:

The [insert project name] wind facility has summer risk to tricolored bat and therefore will implement the summer risk curtailment strategies in the Guidance (feather turbines below 11.2 mph (5.0 m/s) from [insert correct dates based on location]).

Use for projects with possible summer risk and that conducted pre-construction surveys. Survey results showed TCB probable absence (negative survey results):

Pre-construction surveys¹ of the [insert project name] wind facility [insert year(s)] indicated no summer presence of the tricolored bat. In addition, the Service is not aware of any tricolored bat maternity colonies within 3 miles of the project area outlined in the Guidance. The [insert project name] can operate project turbines during the summer risk periods [insert summer risk dates (e.g., May 15- July 14)] feathered below the Project's turbine(s) manufacturer's cut-in speeds.

To ensure that take of tricolored bat is not reasonably certain to occur, the [insert company name] commits to the use of real-time acoustic-activated curtailment technology (Option 3) operating, monitoring, and reporting procedures for their [insert Project name] Project. Additionally, [insert company name] has followed Appendix B *Sideboards for Smart Technology Strategies to Achieve Avoidance for Tricolored Bat* and commits to follow the sideboards, program implementation, and reporting procedures specific to Option 3 of the Guidance.

¹ Surveys were conducted according to the Service's [insert year(s)] ["Range-wide Indiana Bat Survey Guidelines" or "Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines"]

Specifically, [insert company name] will install [insert number and name of acoustic units used (i.e., make and model)] on [insert number of turbines], representing [insert percent] of Project turbines. Each unit will be fitted with a [insert microphone model] with an anticipated detection distance of [insert distance]. Microphones will be placed [insert placement details]. Acoustic detectors will record nightly bat activity from 30 minutes before sunset to 30 minutes after sunrise.

Operationally, the [insert Project name] wind facility in [insert county, state] will have [insert number of real-time zones] real-time curtailment zones, with each zone containing a turbine outfitted with the [insert real-time curtailment technology name]. [Insert real-time technology name] is designed to feather all turbines within the zone whenever a bat acoustic call is detected for [insert time (normally 10 minutes)] minutes. If additional bat calls are detected during this time, all turbines within the zone will remain feathered for an additional [insert time] minutes. The real-time curtailment technology must be as equally protective as Option 1 (i.e., turbines should be feathered during all periods when bat calls are detected, at a minimum, under the conditions [season, temperature, wind speed, etc.] specified for the blanket curtailment TAL strategy [Option 1]; Table 1).

Table 1. Operational measures (cut-in speed) displayed in miles per hour (mph) and meters per second (m/s) by date, for tricolored bats at the [Insert project name] wind facility in [insert County, State]. At a minimum, real-time acoustic-activated curtailment should be implemented below these curtailment wind speeds starting 30 minutes before sunset to 30 minutes after sunrise when temperatures are above 40°F⁶.

NOTE: Projects may choose to operate using a streamlined curtailment approach, specifically for projects that want to reduce the number of curtailment threshold modifications over a given year. The streamlined approach would require projects to feather turbines below 11.2 mph (5.0 m/s) from March 15 to July 14, 15.4 mph (6.9 m/s) from July 15 to September 30, and 5.0 m/s from October 1 to November 15. The specific timing of curtailment will be dependent on the project location (see Appendix A). If a project does not have summer risk, it can operate at manufacturers cut-in speeds from May 15 to July 14. Year-round active zones will need to use a curtailment speed of 11.2 mph (5.0 m/s) from November 16 to March 14. Note, there may be alternative curtailment strategies that may be accepted on a project-by-project basis for projects with data indicating lower risk to TCB. These project(s) should provide the justification and data to the local Field Office which will coordinate with the Regional Office for consistency.

Note that the active period dates may be modified if site-specific data suggest that risk to TCB is not reasonably certain to occur after a certain date in areas with hibernating populations. For example, in Missouri, a project has shown that TCB activity is greatly reduced after October 31 annually so this project would not need to feather turbines below 11.2 mph (5.0 m/s) from November 1 to November 15th annually.

Dates	Cut-in Speed in mph (m/s)
January 1 – March 14	[insert the recommended cut-in speed or delete this row if “N/A”, use data from Appendix A of the Guidance.]
March 15 – 31	[insert the recommended cut-in speed or delete this row if “N/A”, use data from Appendix A of the Guidance.]
April 1 – 14	[insert the recommended cut-in speed or delete this row if “N/A”, use data from Appendix A of the Guidance.]
April 15 – 30	[insert the recommended cut-in speed or delete this row if “N/A”, use data from Appendix A of the Guidance.]
May 1 – 14	11.2 mph (5.0 m/s)
May 15 – 31	[“11.2 mph (5.0 m/s)” or insert the manufacturer’s cut-in speed for the Company’s turbine model depending on if there is summer TCB risk]
June 1 – July 14	[“11.2 mph (5.0 m/s)” or insert the manufacturer’s cut-in speed for the Company’s turbine model depending on if there is summer TCB risk]
July 15 – 31	13.4 mph (6.0 m/s)
August 1 – September 30	15.4 mph (6.9 m/s)
October 1 – 31	[insert the recommended cut-in speed or delete this row if “N/A”, use data from Appendix A of the Guidance]
November 1 – 15	[insert the recommended cut-in speed or delete this row if “N/A”, use data from Appendix A of the Guidance]
November 16 – December 31	[insert the recommended cut-in speed or delete this row if “N/A”, use data from Appendix A of the Guidance]

¹ Project should feather turbine blades whenever bats are acoustically detected in real-time below these cut-in speeds. Feathering occurs when turbine blades are pitched parallel with the prevailing wind direction to slow rotation speeds (generally less than 1 rotation per minute).

In addition to implementing the operational procedures specific to [insert real-time technology name], [insert company name] will develop and implement a detailed post-construction mortality

monitoring (PCMM) plan in coordination with the Service's [insert field office name] that will include specifics on the numbers of turbines searched, size of plots, frequency of searches, details on bias correction trials, and statistical analyses. By January 31, of each year that this TAL is implemented, [insert project company name] will provide an annual report to the Service's [insert field office name] that describes the operational measures implemented that year, along with any results of the monitoring as prescribed in the detailed PCMM plan created in coordination with the Service. The framework for the monitoring program is as follows:

- The Project will develop and implement a detailed PCMM plan in consultation with the Service and will use [insert either: "EoA to design a PCMM plan" or describe the alternative agreed-upon sampling design method] to achieve [insert either "a minimum cumulative detection probability (g) of 0.2" or an alternative agreed-upon approach to achieve similar detection certainty]. The plan will specify data to be collected, searcher efficiency trials, carcass persistence trials, area correction, and other appropriate measures. The Project may periodically consult with the Service regarding cost-effective and logistically feasible changes to the monitoring approach and implementation of applicable new methods or regulatory changes.
- Efficacy monitoring protocol will consist of two components² while this TAL is in effect: (1) PCMM for one year designed to achieve ["a minimum detection probability (g) of 0.2" or the agreed upon alternative approach] during the entire active season for bats [insert dates for your FO]; and (2) PCMM every 7 years afterward designed to achieve [insert either "a g of 0.08" or the agreed upon alternative approach] during the entire active season for bats [insert dates for FO].
- If any tricolored bat carcasses are found during PCMM, [insert company name] will report the fatality within 24 hours of discovery to the [insert local Field Office and contact information] and the Service's Office of Law Enforcement (OLE) [insert local OLE information]. If bat identification is not possible, genetic testing will occur and while waiting for results the project will continue to operate under the TAL. In addition, the Project will immediately work with the Field Office to determine and modify operations to ensure operational avoidance measures for tricolored bats (e.g., modifying the curtailment strategy at the specific turbine(s), modifying the technology protocols to ensure operational avoidance, reverting to a blanket curtailment strategy (Option 1 of the Guidance), not operating at night, during the period of risk for ½ hour before sunset to ½ hour after sunrise; etc.).

Annual reports will be sent to the Field Office by January 31st. Annual reports will reaffirm that operational commitments were implemented (i.e., operating at cut-in wind speeds and if PCMM

² The Service is currently developing a monitoring framework for wind facilities with low risk of taking listed bat species. We intend to use the new framework in place of these monitoring requirements when completed.

^{3 3} Projects may request an extension if needed by contacting the local Field Office.

was implemented as designed⁴). Annual reports with PCMM will include compiled bat fatality data for all bat species using this reporting form [([Region 3 Wind Post-Construction Monitoring Bat Reporting Form | FWS.gov](#)) or insert another reporting form that your FO would like to use]. Projects should provide the auto-identification output Excel spreadsheets (determined by Service-approved auto-ID programs⁵) with the following information amended for each bat call file: 1) confirmation that every tricolored bat call has been vetted⁶, 2) the name of the person who vetted the acoustic call, 3) if the turbine was feathered at the time of the acoustic call (i.e., spinning at less than 1 rotation per minute), and 4) the corresponding 10-minute rolling average temperature and wind speed for each tricolored bat call file. All bat species acoustic calls should be included in the file. Once the reporting documents are received, the Project should continue operating under the TAL and the Service will provide email confirmation that the TAL is still valid within 90 days after a report is received.

As of the date of this letter, the [insert field office name] concludes that the Project is not reasonably certain to result in take of tricolored bats. The Service reached this conclusion through coordination and ongoing discussions with [insert project company name], including [insert project company name]'s commitment, in writing to the Service, that the above measures will be implemented as long as the TAL is in effect. If applicable, we recommend that [insert project company name] further coordinate these plans with the [insert state agency name], as the tricolored bat is a [insert either: state-listed species, species of conservation concern, or the specific language used by the state agency]. Please contact [insert state name and contact information].

This office is not authorized to provide guidance in regard to the Service's Office of Law Enforcement (OLE) investigative priorities involving federally listed species. However, we understand that OLE carries out its mission to protect ESA-listed species through investigation and enforcement, as well as by fostering relationships with individuals, companies, and industries that have taken effective steps to minimize the likelihood of take such that it is not reasonably certain to occur for tricolored bats. It is not possible to absolve individuals or companies from liability for unpermitted take of listed species, even if such take occurs despite the implementation of appropriate minimization strategies to which the likelihood of take is not reasonably certain to occur, as described in the Guidance. However, the OLE focuses its enforcement resources on individuals and companies that take listed species without identifying

⁴ The Service will accept the monitoring results if the report demonstrates that post-construction mortality monitoring was implemented as designed (i.e., resulting g-value may fall short of 0.2 as long as monitoring was implemented as designed).

⁵ [Automated Acoustic Bat ID Software Programs | FWS.gov](#). Note, all auto-ID programs are considered candidates in portions of ND, SD, MT, NE, and KS. In these areas, two auto-ID programs should be used and the results cross-referenced. This process and a depiction of these areas are available in the Service's Range-Wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines (page 8, step 6).

⁶ Currently approved programs have some bias in correctly identifying TCB calls to the 0.05 MLE value typically used for Indiana and northern long-eared bats. We recommend that all call files identified as TCB be vetted even if the MLE is below 0.05 to mitigate this bias.

and implementing all reasonable, prudent, and effective measures to minimize the likelihood of take such that take is not reasonably certain to occur. To be in compliance with the take prohibitions of the ESA, the facility must work with the Field Office to implement additional avoidance measures (e.g., not operating at night during the period of risk, etc.) and consider applying for an incidental take permit under 10(a)(1)(B) or initiate consultation through 7(a)(2) of the ESA. This office concludes that, if [insert project company name] follows the measures above, the [insert project name] project is not reasonably certain to take ESA listed species.

Thank you for your continuing coordination on project development. Should you have questions regarding this TAL, please contact [Insert FO contact name and contact information], at our office.

Sincerely,

[insert Field Supervisor name]
Field Supervisor

cc: [insert state agency contact for bats and wind projects, if applicable]