

Pre-Construction Monitoring

Evergreen Wind Power V will measure ambient sound levels at three or more community positions located along the proposed wind project boundary and at nearby residential land uses. The monitoring positions will be selected at or in close proximity to dwelling D1 and receiver points R5 and R6 as shown on Figure 1. Monitoring positions may be adjusted or additional positions established based on site conditions and field observations. Measurements will be conducted to provide at least 24 hours of ambient sound level readings at each position.

Continuous sound level readings will be taken every 1/8-second to calculate statistics on a 10-second and one-hour basis at each position. Noise survey instrumentation will be precision Type 1 sound level meters in accordance with IEC and ANSI standards. The microphones will be fitted with windscreens and mounted on tripods at a height of five feet above the ground. The sound level meters will be calibrated using recognized field and laboratory procedures. A portable meteorological station will be deployed to continuously record surface weather conditions including temperature, humidity, and wind speed and direction. The majority of ambient readings will be conducted with surface wind speeds at 12 mph or less. Noise survey data will also include field observations, video footage, photos and a site sketch of each monitoring position.

A summary of measurement results will be prepared including graphs and tables of hourly sound level readings, a description of ambient sound sources, meteorological data, site photos, and a vicinity site map of the monitoring locations.

Post-Construction Monitoring

Evergreen Wind Power V will measure sound levels at three or more community monitoring positions with the Stetson Mountain Wind Project at 75% or more of full operation. The monitoring positions will be selected at or in close proximity to ambient monitoring positions near dwelling D1 and receiver points R5 and R6 as shown on Figure 1. Monitoring positions may be adjusted or additional positions established based on site conditions and field observations. Measurements will be scheduled to occur over a 24-hour period based on weather and operating forecasts. Reasonable attempts will be made to monitor operating sound levels for at least 12 hours with wind speeds in excess of 20 mph at the height of wind turbine hubs and surface winds less than 10 mph at community monitoring positions. Wind speed at turbine hubs and electrical power output will be recorded for each wind turbine during the monitoring period. Surface weather conditions including temperature, humidity, and wind speed and direction will be recorded using one or more portable meteorological stations.

Continuous sound level readings will be taken every 1/8-second to calculate statistics on a 10-second and one-hour basis at each position. Third-octave band sound levels will be measured at each position to identify the sound level contribution of the wind project and other sources to adjust sound level readings. Noise survey instrumentation will be precision Type 1 sound level meters in accordance with IEC and ANSI standards. The microphones will be fitted with windscreens and mounted on tripods at a height of five feet above the ground. The sound level meters will be calibrated using recognized field and laboratory procedures. Field observations will supplement sound level measurements to determine the primary contributors to the measured sound levels. Where the primary contributor is determined to be sound from the wind turbines or appropriate adjustments can be made, the measured sound levels will be compared to LURC noise standards and estimates provided with the LURC application.

A summary of operational sound level measurements will be prepared including graphs and tables of hourly sound level readings, turbine operating data, third octave-band sound levels, meteorological data, and a description of sound sources.



FIGURE 1
Stetson Wind Project
Vicinity Site Plan

Legend

- ▭ Area To Be Rezoned
- ▬ Proposed Ridgetop Road
- Primary Turbine Location
- Alternate Turbine Location
- Approximate Parcels
- Noise Receiver Position
- ✱ Existing Dwelling

