Resolution No. 9-2022

RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF CHEROKEE COUNTY REGULATING AND LICENSING INDUSTRIAL-SCALE WIND TURBINE POWER GENERATION FACILITIES

WHEREAS, the Board of County Commissioners of Cherokee County, Kansas, the governing body or Cherokee County (the "Board"), has general police powers and home rule powers pursuant to K.S.A. 19-101a *et seq.* to determine the local affairs of Cherokee County and perform all powers of local legislation as it deems appropriate to protect and preserve the interest of Cherokee County and its citizens and to protect and promote their health, safety, and welfare.

WHEREAS, industrial-scale wind turbine power generation facilities have the potential to impact the health, safety, and/or welfare of citizens in Cherokee County, particularly those with land or residences in the vicinity of such facilities and/or impacted by such projects.

WHEREAS, given the impact to the health, safety, and/or welfare of the Citizens of Cherokee County, the Board deems it appropriate to establish certain regulations concerning Industrial-Scale Wind Turbine Power Generation Facilities and to require licensing of the same within Cherokee County.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTYCOMMISSIONERS OF CHEROKEE COUNTY, KANSAS, THAT THE FOLLOWING RESOLUTION BE ADOPTED:

Section 1. Authority

This Resolution is adopted pursuant to the powers of the Board of County Commissioners of Cherokee County, Kansas, under K.S.A. 19-101a(a) and (b).

Section 2. Legislative Findings

A. Industrial-scale wind turbine power generation facilities typically consist of a significant number of mechanical structures, each of which is taller than any man-made structures currently located in Cherokee County, and spread over large areas, often consisting of many square miles.

B. An appreciable portion of the residential population of Cherokee County resides outside of the boundaries of any city.

C. Industrial-scale wind turbine power generation facilities and proposed facilities have generated significant controversy and division in other communities, engendered ill will among neighbors, and have created short- and long-term concerns and problems for counties, townships, and/or residents in proximity to such facilities.

D. Industrial-scale wind turbine power generation facilities have the potential to have substantial adverse impacts on the welfare of residents of Cherokee County including but not

limited to: 1) the generation of noise; 2) the generation of visual effects on other properties; 3) the degradation of the physical environment; 4) the transformation of the landscape and/or perception of the landscape; 5) the degradation of road and bridge infrastructure as a result of traffic loads beyond those for which the infrastructure was designed; 6) interference with agricultural production and established agricultural practices; 7) interference with aviation; and 8) interference with important and sensitive environmental and ecological assets and areas, open space, viewscapes and aesthetics, wetlands, and other ecological and environmentally sensitive areas.

E. Regulation of the industrial-scale wind turbine power generation in Cherokee County by Cherokee County is merited in the public interest.

Section 3. Regulations

A. Application: This Resolution shall apply after its effective date to all persons and all property located within the unincorporated areas of Cherokee County, Kansas, and shall be applicable to any person and/or entity locating within or upon any property located in the unincorporated areas of Cherokee County, Kansas, which installs, operates, and/or maintains an industrial-scale wind turbine power generation facility.

B. Definitions: As used in this Resolution, the following terms shall have the following meanings, unless the context otherwise specifies:

1. Ambient: the sound pressure level exceeded 90% of the time over a 96-hour measurement period with daytime/nighttime division.

2. ANSI: the American National Standards Institute.

3. Applicant: the person, firm, corporation, company, limited liability company, or other entity, as well as the Applicant's successors, assigns, and/or transferees, which submits to the County a project summary request to construct any industrial-scale wind turbine power generation facility. An Applicant who will construct, own, and/or operate the industrial-scale wind turbine power generation facility shall have the legal authority to represent and bind the landowner or leaseholder of the property on which such facility shall be constructed, owned, and/or operated.

4. Audible: the varying degrees of sound perception as reported by affidavit, including, but not limited to just perceptible, audible, clearly audible, and objectionable.

5. Board: the Board of County Commissioners of the Cherokee County, Kansas.

6. dBa: the A-weighted sound level.

7. dBC: the C-weighed sound level.

8. Decibel (dB): the practical unit of measurement for sound pressure level; the number of decibels of a measured sound is equal to 20 times the logarithm to the base 10 of the ratio of the sound pressure of the measured sound to the sound pressure of a standard sound (20 microPascals); abbreviated "dB".

9. Emergency work: any work or action necessary to deliver essential services in an emergency situation, and abating life-threatening conditions.

10. Leq (Equivalent Sound Level): The sound level measured in decibels with an integrating sound level meter and averaged on an energy basis over a specific duration.

11. GIS: Geographical Information System and is comparable to GPS (global positioning system) coordinates.

12. Industrial-scale wind turbine power generation facility: two or more wind-driven generators of a height of 75 feet or more for the production of electricity for sale and located in unincorporated areas of Cherokee County, Kansas, and any accessory structures and buildings, including substations, meteorological towers, electrical infrastructure, transmission lines, and other appurtenant structures located within the boundaries of land where an Applicant plans to construct all or a portion of such electric generation facility.

13. L10: the noise level exceeded for 10% of the time of the measurement duration. This is often used to give an indication of the upper limit of fluctuating noise, such as that from road traffic.

14. L90: the noise level exceeded for 90% of the time of the measurement duration and is commonly used to determine ambient or background noise level.

15. Natural Quiet: the sounds of nature uninterrupted by human-caused noise.

16. Noise: a sound, especially one that is loud or unpleasant or that cause disturbance. Any airborne sounds of such level and duration as to be or tend to be injurious to human health or welfare or that would unreasonably interfere with activities or the enjoyment of life or property.

17. Pasquill Stability Class: a classification defined for different meteorological situations, characterized by wind speed and solar radiation (during the day) and cloud cover (during the night). The turbulence of the atmosphere is the most important parameter affecting dilution of a pollutant.

18. Primary Structure: residential and commercial buildings including but not limited to hospitals, day care facilities, residential care facilities, schools, and churches.

19. SCADA (Supervisory Control and Data Acquisition): A Computer system that monitors and controls industrial-scale wind turbines and facilities.

20. Small-Scale Wind Energy Conversion Systems: Windmills, wind turbines, and related facilities located on the premises of a farm, home, or business intended to generate electric power from wind solely for the use of the site on which the system is located.

21. Sound level meter: an instrument for the measurement of sound levels that meets the ANSI requirements of S1.4-1983 (or later revision) for Type 1 or 2 instruments. For frequency analysis, octave and 1/3 octave filters shall conform to ANSI S1.11-1986 (or later revision).

22. Turbine Height: the vertical desistance between base of the turbine tower structure where the tower structure meets the foundation at its lowest point and the highest point of blade travel in the vertical position.

23. Wind Turbine: a combination of the following:

a. A mill or machine operated by wind acting on oblique vanes or sails that radiate from a horizontal shaft;
b. A surface area such as a blade, rotor, or similar device, either variable or fixed, for utilizing the wind for electrical or mechanical power;
c. A shaft, gearing, belt, or coupling utilized to convert the rotation of the surface area into a form suitable for driving a generator, alternator, or other electricity-producing device;
d. The generator, alternator, or another device to convert the mechanical energy of the surface area into electrical energy;
e. The tower, pylon, or other structure upon which any, all, or some combination of the above are mounted.
f. Any other components not listed above but associated with the normal construction, operation, and maintenance of a wind turbine.

C. Standards and Requirements: All industrial-scale wind turbine power generation facilities shall meet the following standards and requirements:

1. Aesthetic and Scenic Vista: The maximum turbine height of any wind turbine shall not exceed four hundred forty (440) feet. Each wind turbine must be at least six (6) times its rotor diameter from another wind turbine beginning at the nearest point on the base of each tower.

2. Lighting: Wind turbines shall be equipped with an Aircraft Detection Lighting System (ADLS) using only vendors approved by the FAA. Lighting shall be fully shielded from the ground, be FAA compliant, and minimize lighting blinking and brightness nuisance.

3. Noise:

a. No industrial-scale wind turbine power generation facility shall generate audible noise that exceeds 39 dBA or 4 dBC (dBC to dBA ration of 10 dB per ANSI standard S12.9 Part 4 Annex D) during the hours of 10 p.m. to 7 a.m. for any duration, at any property line within 5250 feet of the base of the nearest wind turbine. This requirement may be waived by the Board upon proof of an agreement waiving these requirements signed by the owner/operator of the facility and all landowners/leaseholders within 5250 feet. Said agreement shall be recorded with the Cherokee County Register of Deeds.

b. No industrial-scale wind turbine power generation facility shall generate plainly audible noise that exceeds 45 dBA or 55 dBC (dBC to dBA ratio of 10 dB per ANSI standard S12.9 Part 4 Annex D) during the hours of 7 a.m. to 10 p.m. for any duration, at any property line within 5250 feet of the base of the nearest wind turbine. This requirement may be waived by the Board upon proof of an agreement waiving these requirements signed by the owner/operator of the facility and all landowners/leaseholders within 5250 feet. Said agreement shall be recorded with the Cherokee County Register of Deeds.

c. No industrial-scale wind turbine power generation facility shall generate any acoustic, vibratory, or barometric oscillations that exceeds a sound pressure level from 0.1 to 20 Hz of 50 dB (unweighted) re 20uPA or exceeds and RMS accelerations level of 50 dB (unweighted) re 1 micro-g by instrumentation at any property line within 5250 feet of the base of the nearest wind turbine.

d. No industrial-scale wind turbine power generation facility shall generate any vibration in the low-frequency range of 0.1 to 20 Hz, including the 1, 2, 4, 8, and 16 Hertz octave bands that is perceivable by human sensation or exceeds an rms acceleration level of 50 dB (unweighted) re 1 micro-g at any time and for any duration either due to impulsive or periodic excitation of structure or any other mechanism at any property line within 5250 feet of the base of the nearest wind turbine.

e. A tonal noise condition generated from industrial-scale wind turbine power generation facility shall be assessed an upward noise penalty of 5 dBA (example 42 increased to 47 dBA) for assessment to the nighttime and daytime noise limits.

f. A noise level measurement made in accordance with methods set forth herein under "Noise Measurement and Compliance" that is higher than 39 dBA or 49 dB during the nighttime hours or 45 dBA or 55 dBC during the daytime hours, adjusted for the penalty assessed for a tonal noise condition, shall constitute prima facie evidence of a nuisance.

g. An acoustic, vibratory, or barometric measurement documenting oscillations associated to industrial-scale wind turbine power generation facilities with levels exceeding the limits set forth above shall constitute prima facie evidence of a nuisance.

4. Set-backs:

a. Owners and operators of all industrial-scale wind turbine power generation facilities shall maintain a distance of 5250 feet between any turbine located in Cherokee County and the nearest property line, using turbine pole centerline as a wind turbine measuring point.

b. Owners and operators of all industrial-scale wind turbine power generation facilities shall maintain a distance between the base of any turbine and any public road right of way, third-party transmission lines, antenna, communications towers, or water tower in Cherokee County of not less than two (2) times the distance Turbine Height, using turbine pole centerline as a measuring point.

c. Owners and operators of all industrial-scale wind turbine power generation facilities shall maintain a distance between the base of any turbine and any cropland otherwise capable of being serviced by aerial spraying of not less than 2,500 feet.

d. Owners and operators of all industrial-scale wind turbine power generation facilities shall maintain a distance between the base of any turbine and any airport, airfield, or landing strip of not less than five nautical miles.

e. Owners and operators of all industrial-scale wind turbine power generation facilities shall maintain a distance between the base of any turbine and wildlife refuges (as owned and/or operated by the Kansas Department of Wildlife & Parks), lakes or rivers of three (3) miles.

f. In no case shall an industrial-scale wind turbine power generation facility be located closer to a primary structure than 5250 feet.

5. Blade Clearance: Blade arcs created by a wind turbine shall have a minimum of one hundred (100) feet of clearance over and from any structure. The minimum clearance from ground level to the blade at its lowest point shall be one hundred feet.

6. Braking: Each wind turbine shall be equipped with a braking, or equivalent device, capable of stopping the turbine operation in high winds with or without SCADA control. Braking system shall be effective during complete GRID power failure where wind turbines are unable to communicate with SCADA control or receive power.

7. Coating and Color: A industrial-scale wind turbine power generation facility shall be painted a non-obtrusive (light environmental color such as gray, white or off-white) color that is non-reflective per FAA guidelines. The wind turbine base and blades shall be of a color consistent with all other turbines in the area. No striping of color or advertisement shall be visible on the blades or tower.

8. Infrastructure Wiring: All electrical connection systems and lines from the industrial-scale wind turbine power generation facility to the electrical grid connection shall be located and maintained underground. Burial depth shall be at a depth that causes no known environmental, land use, or safety issue. Depth shall be a minimum of six (6) feet below grade, be deeper than drain tile, and be in compliance with NEC2014 or newer Code standards. The Board may waive the burial requirement and allow above-ground structures in limited circumstances, such as geography precludes, or a demonstrated benefit to the County. The waiver shall not be granted solely on cost savings to Applicant. Requests for variation shall consider aesthetics, future use of land, and effect on nearby landowners.

9. Site/Liability Insurance: Owners and operators of all industrial-scale wind turbine power generation facilities shall insure for liability for the facility without interruption until removed. The owner/operator shall provide the Board proof of insurance annually for each wind turbine in an amount no less than $5,000,000 for liability, property damage, livestock damage, and future earnings loss. Aggregate policies are allowed if minimum coverage per wind turbine is satisfied, and coverage is provided for every site within the facility.

10. Removal and Site Renovation:

a. A condition of every license shall be adequate provision for the removal of the structure and its components to a depth of forty-eight (48) inches below the surface whenever it ceases to actively produce power for one hundred eighty (180) days or more. The Board can grant an extension of an additional one hundred eighty (180) days upon the owner/operator demonstrating that the structure will be put back into use. Removal shall include proper restoration of the site(s) to original condition. Restoration must be completed within 365 days of non-operation.

i. Landowners may waive complete underground wiring removal upon proof that any and all remaining underground wiring will not negatively affect the environment, such as, but not limited to, water quality, natural water flow, or area wildlife. The Landowner shall execute a waiver and file the same with the Cherokee County Register of Deeds waiving these requirements.

11. Removal Insurance (Decommissioning): To ensure proper removal of each industrial-scale wind turbine power generation facility structure when it is abandoned or non-operational, owners and operators shall provide proof of the financial security in effect. The security shall be licensed in the State of Kansas and be in the form of 1) cash deposit or 2) performance (surety) bond selected by the Board and bonded by a top institution from the Department of the Treasury's Listing of Approved Sureties – Department Circular 570, T-list. The duration of the security shall be termed to the removal of each wind turbine. Additionally, security is based on each wind turbine and is to be backed by owner assets, operator assets, parent company assets, and leasehold assets approved by the Board.

a. The amount of each wind turbine security guarantee (surety) shall be the average of at least two independent demolition (removal) quotes, obtained and approved by the Board, plus 10%. If the quantity of quotes obtained is two, the formula shall be (quote 1 + quote 2)/2 * 1.10. The security guarantee shall be no less than $800,000 per wind turbine. Quotes shall be based on individual wind turbine removal and shall not group multiple wind turbines simultaneous removals together. Quotes shall be ordered and obtained by the Board during the license review process from established demolition companies. Quotes shall not include salvage values. Security guarantee shall be updated every five (5) years at the rate of 1.5 times Consumer Price Index (CIP) for each year.

b. Such financial guarantee shall be deposited or filed with the County after licensing has been approved, but before construction operations begin on the industrial-scale wind turbine power generation facility project. Failure to keep such financial security in full force and effect at all times while the structure exists shall constitute a material and significant violation of approved agreements and this Resolution and shall subject the Owner/Operator to all available remedies to the County, including enforcement action, fines, revocation of the agreements, and facility removal.

c. The Owner/Operator shall be responsible for the payment of reasonable attorney fees and other cots incurred by the County in the event the County has to enforce removal.

d. In the event the owner, operator, parent company, or performance bond defaults on any or all of the decommissioning requirements, the Landowner upon which each wind turbine is located shall be responsible and liable for the removal of each wind turbine. Failure of the Landowner to comply with the removal and decommissioning guidelines shall result in the County having the wind turbine removed at the expense of the Landowner.

12. Road Damage: No person installing an industrial scale wind turbine power generation facility shall operate any equipment over any county or township road or road intersection which because of its weight damages or is likely to damage any road surface, culvert, bridge or other infrastructure or which requires a turning radius at any intersection in excess of the turning radius available in the improved portion of such intersection. Any damage to a public road located within the County resulting from the construction, maintenance, or operation of an industrial-scale wind turbine power generation facility shall be repaired at the Owner/Operator's expense pursuant to Cherokee County Road & Bridge Department requirements within ninety (90) days of project completion but shall not exceed 365 days from project completion.

13. Signage: Each industrial-scale wind turbine power generation facility shall have one sign per wind turbine, or tower, located at the roadside and one sign attached to the base of each wind turbine, easily visible throughout four seasons. Signs shall be at least two square feet in area. Signs shall be the same and shall uniquely identify each wind turbine. Additional signage on and around the tower is recommended. The sign shall contain at least the following: a) Warning high voltage; b) Landowner's name, Facility Owner's name, Operator's name; c) Emergency telephone numbers and web address.

14. Voltage: Wind turbines shall prohibit stray voltage, surge voltage, and power from entering ground.

15. Operational Maintenance: All industrial-scale wind turbine power generation facilities shall be kept and maintained in good repair and condition at all times. If a facility is not maintained in operational and reasonable condition or poses a potential safety hazard, the Owner/Operator shall take expeditious action to correct the situation, including wind turbine removal. The Owner/Operator shall keep a maintenance log on each wind turbine and must provide a complete copy to the County within thirty (30) days of request.

16. Filing of lease contracts: Filing of lease contracts between Landowners and Applicant and/or signed releases pertaining to set-backs, underground wiring, structures, and noise shall be submitted within forty-five (45) days of execution.

D. Exemptions:

1. Small-Scale Wind Energy Conversion Systems as defined in Section 3(B)(20) shall be exempt from the regulations set forth in Section 3, EXCEPT for the standards and requirements as set forth herein. Such units shall be allowed provided the electricity is used on-site for a farm, home, or business.

a. Turbine Height: The total height of any wind turbine in a small-scale wind energy conversion system with the blade fully extended shall not exceed one hundred thirty (130) feet.

b. Setback: The minimum setback from property lines and road right of way lines shall be equal to three (3) times the Turbine Height, the vertical distance between base of the turbine tower structure where the tower structure meets the foundation and the blade at its highest point.

c. Noise: The Small-Scale Winder Energy Conversion System shall comply with the standards and requirements set forth in Section 3.(C)(3) "Noise."

E. Licensing:

No industrial scale wind turbine power generation facility shall be constructed or operated within Cherokee County in the absence of the issuance of a current industrial-scale wind turbine power generation facility license by the Board of County Commissioners of Cherokee County. An Applicant shall provide the Board the following supporting data and documentation:

1. Project Summary:

a. Name, address, and telephone number of Applicant and contact person for the construction.

b. A general description of the project, including its approximate name plate generating capacity, proposed wind turbine locations, accessory structures and buildings.

c. The potential equipment manufacturer(s), type(s) of wind turbines, number of wind turbines and name plate generating capacity of each wind turbine.

d. The maximum height of the wind turbine tower(s), the maximum diameter of the wind turbine rotors, and description of the general location of the project.

2. Studies and Assessment Costs:

a. Environmental Assessment: The Applicant shall fund an environmental assessment or impact study and other relevant report(s) or studies (including, but not limited to, assessing the potential impact on endangered species, eagles, birds, and/or other wildlife) as required by the Board for review. Studies shall be limited to the area within three (3) miles outside of the proposed project boundaries.

b. Sound Study: A background (ambient) sound study shall be performed, and a report provided which indicates Leq 1 second, L10, and L90 sound levels using A-weighting and C-weighting. Data shall be collected at midpoints along property lines of adjoining Landowners. Measurement procedures are to follow the most recent versions of ANSI S12.18 and ANSI S12.9,

Part 3 guideline (with an observer present). Measurements shall be taken using an ANSI or IEC Type 1 precision integrating sound level meter. The study must include a minimum of a four-day (96 hour) testing period, include one Sunday, and divide data by daytime and nighttime. The sound background study shall report for the period of the monitoring topography, temperature, weather patterns, sources of ambient sound, and prevailing wind direction.

c. Economic Impact: The Applicant shall fund an economic impact study for the area affected by the industrial-scale wind turbine power generation facility project. Such a study shall include probable financial impact regarding jobs, tax revenue, lease payments and property values at a minimum and average set-back distance. Business and residential growth potential shall be considered.

3. Site Plan: The Applicant shall submit a site plan in full compliance of this Resolution. The Applicant shall also submit a written explanation of the design characteristics and the ability of the structure(s) and attendant facilities to withstand winds, ice and other naturally occurring hazards, as well as information regarding health, safety and welfare in areas including, but not limited to, noise, vibration, shadow flicker, and blade ice deposits. This information shall also address the potential for the wind turbine to structurally fail or collapse, and what results should be expected in such an event. Additional requirements for an industrial-scale wind turbine power generation facility site plan are as follows:

a. Building Siting: GIS locations and height of all proposed buildings, structures, electrical lines, towers, guy wire anchors, security fencing, and other above-ground structures associated with the industrial-scale wind turbine power generation facility.

b. Nearby Building Siting: GIS locations and height of all adjacent buildings, structures, and above ground utilities located within three (3) times minimum set-back distance where the proposed industrial-scale wind turbine power generation facility will be located. The location of all existing and proposed overhead and underground electrical transmission or distribution lines shall be shown, whether to be utilized or not with the Facility, located on the lot or parcel involved.

c. Access Driveways: GIS location of all wind turbines and the industrial-scale wind turbine power generation facility access driveways together with details regarding dimensions, composition and maintenance of the proposed driveways. The site plan shall include traffic routes, time of the year use, staging areas, and any other physical sites related to industrial wind turbines power generation. Construction of the Access Driveway that services a wind turbine power generation facility is required to protect the public health, safety and welfare by offering an adequate means by which governmental agencies may readily access the site in the event of an emergency. All such roads shall be constructed to allow access at all times by any emergency service vehicles, such as fire, police, and repair. Access driveways shall be no closer than three hundred (300) feet to adjacent property unless Applicant provides documentation in the form of a signed approval by the Landowners. Such approval shall be recorded with the Cherokee County Register of Deeds.

d. Facility Security: Security measures shall be sufficient to prevent unauthorized trespass and to protect health, safety and welfare.

e. Maintenance Program and Resolution Program: The Applicant shall provide to the Board a written description of the problem and failure program to be used to resolve the facility issue, including procedures and schedules for removal when determined to be obsolete or abandoned.

f. Site Lighting: The Applicant shall provide to the Board a lighting plan for each wind turbine and/or other industrial-scale wind turbine power generation facility structure. Such plan must describe all lighting that will be utilized and documentation that FAA requirements are met. The Applicant shall certify that the facility meets all lighting requirements imposed by this resolution. Such a plan shall include, but is not limited to, the planned number and location of lights, light color, activation methods, effect on county residents, and whether any lights blink. Due to complexity in describing lighting effects for health, safety and welfare, Applicant shall, if available, provide example locations with product descriptions, where similar, or proposed, lighting solutions are currently deployed.

g. The Applicant shall provide the Board certification that the facility meets all setback requirements imposed by this resolution.

h. The Applicant shall provide the Board certification that the facility will not interfere with any weather monitoring or forecasting radar used to gather data from which to advise the public or members of the public of adverse weather events or conditions or of threats of such events or conditions.

i. The application shall provide the Board the specifications of each wind turbine within the facility.

j. Supplemental: Additional detail(s) and information as requested by the Board.

4. Site Insurance: The Applicant shall provide proof of Insurance pursuant to the requirements of Section 3, Paragraph C (9) of this resolution.

5. Removal Insurance (Decommissioning): The Applicant shall provide proof of satisfaction of the requirements contained in Section 3, Paragraph C (11) of this resolution regarding Removal Insurance.

6. Safety Manual: The Applicant shall provide an unredacted copy of the manufacturer's safety manual for each model of turbine without distribution restraints to be kept at the County Courthouse and other locations deemed necessary by the Board or local first

responders. The Manual must include standard details for an industrial site such as materials, chemicals, fire, access, safe distances during wind turbine failure, processes in emergencies, etc. Repair Policy Documentation: Applicant shall provide a detailed policy and process book for the repair, replacement and removal of malfunctioning, defective, worn, or non-compliant wind turbine. Sections of the process book should consider any Resolution requirement or wind turbine performance deficiency.

7. Noise: Applicant shall provide an initial sound modeling report and post-construction report for the project with a schedule and documentation which adhere to the following:

a. Chart outlining Resolution requirements and a description of compliance or non-compliance.

b. Declaration of whether submitted data is modeled or measured.

c. Declaration of values, test methods, data sources, similar for all modeled or measured data.

d. Estimated timeline for project including Resolution completed requirements, construction, post construction, and validation testing.

e. Applicant measured data shall be accompanied by SCADA data confirming full power during testing. Unless otherwise requested, minimum SCADA data format shall be grouped in 24hr periods and 1 second intervals including wind vector, wind speed, temperature, humidity, time-of-day, wind turbine power output, wind turbine amps, wind turbine volts, wind turbine nacelle vector, wind turbine blade RPM, wind turbine blade pitch.

f. Data may be submitted based on wind turbine manufacturer data. However, measured data from active and similar wind turbine facilities shall be simultaneous submitted.

g. It is acknowledged that industrial-scale wind turbine power generation facilities and wind turbines sustain wear over time. Applicant is to submit data from existing and/or similar facility installations showing aged sound measurements (to demonstrate compliance potential over the life of the facility in accordance with this Resolution for 5, 10, and 15-year units.

h. Modeling factors shall be set for the worst-case environment, such as high humidity, frozen ground (non-porous), atmospheric variances (atmospheric profile Pasquill Stability Class E or F preferred), elevated noise source, and no ground cover. Use of modeling methods (standards) shall have deficiencies (limitations) fully disclosed and shall include known error margins. Non-disclosure of modeling method deficiencies shall require resubmission in its entirety with modeling deficiencies disclosed.

8. Noise Measurement and Compliance:

a. Post construction validation and compliance testing shall include a variety of ground and hub height wind speeds, at low (between 6-9 mph) medium (between 9-22 mph) and high (greater than 22 mph). SCDA data shall be provided in the format determined by the Board, licensed engineers, or professional acousticians chosen by the Board at Applicant's expense. Compliance noise measurements are the financial responsibility of the owner of the facility and shall be independently performed by a qualified professional acoustician approved by the Board. Compliance noise measurements shall not exceed the stipulated noise limits and shall assess for and apply tonal noise penalties (per Section I.3.e.) when warranted.

b. Quality: Measurements shall be attended. All noise measurements shall (must) exclude contributions from wind on microphone, tree/leaf rustle, flowing water, and natural sounds such as tree frogs and insects. The latter two can be excluded by calculating the dBA noise level by excluding octave band measurements above the 1000Hz band as in ASNI S12.100 3.11. The Ans-weighted sound level is obtained by eliminating values for octave bands above 1000Hz, or one-third octave bands above 1250 Hz, and A-weighting and summing the remaining lower frequency bands. The wind velocity at the sound measurement microphone shall not exceed 3 m/s (7 mph, maximum) during measurements. A 7-inch or larger diameter windscreen shall be used. Instrumentation shall have an overall internal noise floor that is at least 5 dB lower than what is being measured. During testing of 4elevated sources including, but not limited to, wind turbines, the atmospheric profile shall be Pasquill Stability Class E or F preferred, Class D as alternate.

c. Noise Level Measurement: Noise measurements shall be conducted consistent with ANSI S12.18 Procedures for Outdoor Measurement of Sound Pressure Level and ANSI S12.9 Part 3 (Quantities and Procedures for Description and measurement of Environmental Sound- Part 3: Short-term Measurements with an Observer Present), using Type 1 meter, A-weighting, Fast Response.

d. Tonal Noise: Tonal noise shall be assessed using unweighted (linear) 13 octave band noise measurements with time-series, level-versus-time data acquisition. A measurement shall constitute prima facie evidence of a tonal noise conditional if at any time (single sample or time interval) the noise spectrum of the noise source under investigation shows a 1/3 octave band exceeding the average of the two adjacent bands for by 15 dB in low one-third octave bands (10-125 Hz), 8 dB in middle-frequency bands (160-400 Hz), or 5 dB in high frequency bands (500-10,000 Hz).

e. Sample Metric and Rate: Noise level measurements for essentially continuous non-time varying noise sources shall be acquired using the LeqF(ast) metric at a sample rate of 1-per-second. For fluctuating or modulating noise sources including, but not limited to, wind turbines, a 10-per-second sample rate or faster shall be used. These sample rates shall apply to dBA, dBC and unweighted 1/3 octave band measurements.

f. Reporting: Measurements of time-varying dBA and dBC noise levels and 1/3 octave band levels shall be reporte4d with time-series level-versus-time graphs and tables. Graphs shall show the sound levels graphed as level-vs-time over a period of time sufficient to characterize the noise signature of the noise source being measured. For 1-per-second sampling, a 5-minute-or-longer graph shall be produced. For 10-per-second sampling, a 30 second-or-longer graph shall be produced. Reporting shall identify, and graphs shall be clearing notated, identifying what was heard and when the noise source is dominating the measurement. Reporting shall furnish all noise data and information on weather conditions and Pasquill Class occurring during testing.

9. Board Review: The Review Process shall allow sufficient time for the Board to review the documentation, reports and compliance with regulations set forth in this Resolution as submitted by the Applicant.

a. Upon submission by Applicant, a meeting shall be held by the Board for residents of the County as an opportunity to meet with Applicant and county officials.

b. Written notification of such meeting shall be funded by Applicant and mailed to landowners and residents living within and three (3) miles outside the project boundary to include meeting details, map of the proposed Project, description of the Project, number of wind turbines, and height of wind turbines.

c. Upon satisfactory compliance by the Applicant with regulations set forth in this Resolution, the following Agreements shall be made available a minimum of ten (10) days prior to a scheduled public hearing and requiring a majority vote for approval by the Board:

i. Road Use Agreement: This agreement shall be for the purpose of transporting wind turbines or substation parts and/or equipment for construction, operation or maintenance of the wind turbines or substations identifying all such public roads and obtaining applicable weight and size permits from the relevant government agencies prior to construction. The Applicant shall bring all roads up to at least an 80,000 lbs. load limit by the end of construction and secure financial assurance, in a reasonable amount agreed to by the relevant parties, for the purpose of repairing any damage to public roads caused by constructing, operating or maintaining wind turbines. Such Road Use Agreement shall be applied for and considered pursuant to the County's Right-Of-Way Policy and County restrictions on certain vehicle traffic.

ii. PILOT (Payment in Lieu of Taxes) Agreement: A Financial commitment by Applicant to the County to assist in improving and benefiting all residents of the County.

iii. Decommissioning Agreement: This agreement shall be for the purpose of ensuring proper removal of each wind turbine structure when it is abandoned or non-operational, following, to include, at a minimum, requirements set forth in this Resolution.

iv. Complaint Resolution Agreement: This agreement shall be for the purposes of receiving and forwarding of complaints, investigation of complaints, hearing of complaints, and issuing of decisions and corrective actions.

10. License Term: An industrial-scale wind turbine power generation facility license shall be valid for a period of five (5) years from the date of issuance or until wind turbines not included in the existing license are added to the facility or the location of any turbine is changed from the locations identified in the existing license, whichever is less.

F. Enforcement

1. Any industrial-scale wind turbine power generation facility installed in violation of this Resolution shall be immediately removed by the owner/operator and/or landowner.

2. This resolution may be enforced by injunction. In addition, any violation of this resolution shall be subject to the fines and penalties established by law for conviction of a class A misdemeanor. Each day shall be a separate violation.

3. Upon change of ownership, operator or parent company, the County shall receive from the new owner, operator or parent company notification and updated documents within ninety (90) days including, but not limited to, legal proof of change, corporate legal contract, security bond updates, emergency contact, and local contact.

4. At the discretion of the Board, a cure period of five (5) business days may be granted to Applicant before implementation of a fine(s) in order for Applicants to adjust operational parameters to address a violation(s) that cannot otherwise be immediately rectified.

G. Public Participation: Nothing in this Resolution is meant to augment or diminish existing opportunities for public participation such as public hearings and open meetings.

H. Validity and Severability: Should any portion of this Resolution be found invalid for any reason, such holding shall not be construed as affecting the validity of the remaining portions of this Resolution.

I. Repealer: All other resolutions inconsistent with the provisions of this Resolution are hereby repealed but only to the extent necessary to give this Resolution full force and effect.

J. Effective Date: This Resolution shall be effective upon publication as provided by law.

PASSED and APPROVED by the Board of County Commissioners of Cherokee County, Kansas, this 3rd day of October, 2022.

Cory Moates, Chairman
Cherokee County Commissioner

Myra Carlisle Frazier
Cherokee County Commissioner

Lorie Johnson
Cherokee County Commissioner

ATTEST:

Rebecca Brassart, County Clerk