



**COHOCTAH PLANNING COMMISSION
MEETING
April 04, 2024 at 7:00 PM
Township Hall | Fowlerville, Michigan**

The Township will provide necessary reasonable auxiliary aids and services to individuals with disabilities at the meeting upon 72 hour advance notice by contacting Barb Fear, Township Clerk, by email: bfearclerk@gmail.com, phone: (517) 546-0655, or mail: 10518 N Antcliff Rd Fowlerville MI 48836.

AGENDA

CALL TO ORDER

PLEDGE OF ALLEGIANCE – *Moment of Silence*

ROLL CALL

APPROVAL OF AGENDA

APPROVAL OF MINUTES

- [1.](#) 03/14/2024 PC Minutes

CALL TO THE PUBLIC

MATTERS PERTAINING TO THE GENERAL PUBLIC

UNFINISHED BUSINESS

NEW BUSINESS

- [2.](#) Utility-Scale Wind Energy Systems
- [3.](#) Utility-Scale Battery Energy Storage Systems
4. Recreation Plan

CALL TO THE PUBLIC

ADJOURNMENT



**COHOCTAH PLANNING COMMISSION
MEETING
March 07, 2024 at 7:00 PM
Township Hall | Fowlerville, Michigan**

The Township will provide necessary reasonable auxiliary aids and services to individuals with disabilities at the meeting upon 72 hour advance notice by contacting Barb Fear, Township Clerk, by email: bfearclerk@gmail.com, phone: (517) 546-0655, or mail: 10518 N Antcliff Rd Fowlerville MI 48836.

MINUTES

CALL TO ORDER

Meeting was called to order at 7pm.

PLEDGE OF ALLEGIANCE – *Moment of Silence*

ROLL CALL

PRESENT

Jessica Buttermore
Chrissy DeFrancisco
Phil Charette
Mark Cican
Kyle Engel
Sarah Newton
Clint Beach

APPROVAL OF AGENDA

Motion made by Engel, Seconded by Cican to approve agenda as presented.
Voting Yea: Buttermore, DeFrancisco, Charette, Cican, Engel, Newton, Beach

APPROVAL OF MINUTES

Motion made by Charette, Seconded by Newton to approve the minutes of 02-01-2024 as presented.
Voting Yea: Buttermore, DeFrancisco, Charette, Cican, Engel, Newton, Beach

1. Minutes 02-01-2024

CALL TO THE PUBLIC

There was no comments from the Public.

MATTERS PERTAINING TO THE GENERAL PUBLIC

UNFINISHED BUSINESS

2. Master Plan Review

Continued Master Plan Discussion

NEW BUSINESS

3. Produce Stand

Motion made by Engel, Seconded by Cican to approve the Produce Stand as presented.

Voting Yea: Buttermore, DeFrancisco, Charette, Cican, Engel, Newton, Beach

4. Master Plan Cover Art Contest

a photo was chosen for the Master Plan cover page.

CALL TO THE PUBLIC

Public Comment was received.

ADJOURNMENT

Motion made by Newton, Seconded by Engel to adjourn the meeting at 7:37pm.

Voting Yea: Buttermore, DeFrancisco, Charette, Cican, Engel, Newton, Beach

_____ TOWNSHIP

ORDINANCE NO. __
AN ORDINANCE TO AMEND THE TOWNSHIP'S ZONING ORDINANCE
REGARDING WIND ENERGY CONVERSION SYSTEMS

The Township of _____ Ordains:

Section 1. Amendment to Section _____

Section _____ of the Township's Zoning Ordinance is hereby amended to add a section _____ as follows:

SECTION _____

_____. WIND ENERGY CONVERSION SYSTEMS

A. DEFINITIONS.

1. AMBIENT means the sound pressure level exceeded 90% of the time or L₉₀
2. ANSI means the American National Standards Institute.
3. BODY OF WATER means a lake, pond, river, stream, or any other area which is permanently covered by water but does not include a human-made drainage or irrigation channel, lands that are seasonally covered by water or lands which may be subject to intermittent flooding.
4. dB(A) means the sound pressure level in decibels. It refers to the "a" weighted scale defined by ANSI. A method for weighting the frequency spectrum to mimic the human ear.
5. dB(C) means the sound pressure level in decibels. It refers to the "c" weighted scale defined by ANSI.
6. DECIBEL means the unit of measure used to express the magnitude of sound pressure and sound intensity. IEC means the International Electro-technical Commission. ISO means the International Organization for Standardization.
7. DECOMMISSION means to remove or retire from active service.
8. EQUIVALENT SOUND LEVEL (OR LEQ) means the sound level measured in decibels and averaged on an energy basis over a specific duration.
9. HEIGHT OF THE TOWER OR TOWER HEIGHT means the height of the tower or structure to the highest point on the tip of a fully vertical rotor blade from ground

level.

10. IEC means the International Electrotechnical Commission.
11. INSTANTANEOUS SOUND PRESSURE means total instantaneous pressure, in a stated frequency band, at a point in the presence of a sound wave, minus the atmospheric pressure at that point measured in unit pascal (Pa).
12. ISO means International Organization for Standardization.
13. LEASE UNIT BOUNDARY means boundary around property leased for purposes of a Wind Energy System, including adjacent parcels to the parcel on which the Wind Energy System tower or equipment is located. For purposes of setback, the Lease Unit Boundary shall not cross road right-of-ways.
14. MET TOWER means an anemometer tower used to conduct temporary wind assessment studies for possible installation of WECS.
15. NON-PARTICIPATING PARCEL means a parcel of land within the Township that is not subject to a wind turbine lease or easement or other contractual agreement at the time an application is submitted for a Special Land Use Permit for the purposes of developing and constructing a commercial wind energy conversion system.
16. ON SITE WIND ENERGY SYSTEM means a land use for generating electric power from wind and is an accessory use that is intended to primarily serve the needs of the consumer at that site.
17. PARTICIPATING PARCEL means a parcel of land within the Township that is subject to a wind turbine lease or easement or other contractual agreement at the time an application is submitted for a Special Land Use Permit for the purposes of developing and constructing a commercial wind energy conversion system.
18. ROTOR means an element of a wind energy system that acts as a multi-bladed airfoil assembly, thereby extracting through rotation, kinetic energy directly from the wind.
19. SCADA means a computer system that monitors and controls WECS units and data.
20. SHADOW FLICKER means alternating changes in light intensity caused by the moving blade of a wind energy system casting shadows on the ground and stationary objects, such as but not limited to a window at a dwelling.
21. SOUND PRESSURE means an average rate at which sound energy is transmitted through a unit area in a specified direction. The pressure of the sound measured at a receiver.

22. SOUND PRESSURE LEVEL means the sound pressure mapped to a logarithmic scale and reported in decibels (dB).
23. UTILITY GRID WIND ENERGY SYSTEM means a system designed and built to provide electricity to the electric utility grid.
24. WECS TESTING FACILITY means structure and equipment used to determine the potential for the placement of a WECS.
25. WIND ENERGY CONVERSION SYSTEM, (WECS) OR WIND ENERGY FACILITY – An electricity generating facility consisting of one or more wind turbines under common ownership or operation control, and includes substations, MET Towers, cables/wires and other buildings accessory to such facility, whose main purpose is to supply electricity to off-site customers.
26. WIND ENERGY SYSTEM means a land use for generating power by use of wind; utilizing use of a wind turbine generator and includes the turbine, blades, and tower as well as related electrical equipment. This does not include wiring to connect the wind energy system to the grid. See also ON- SITE WIND ENERGY SYSTEM and UTILITY GRID WIND ENERGY SYSTEM.
27. WIND SITE ASSESSMENT means an assessment to determine the wind speeds at a specific site and the feasibility of using that site for construction of a wind energy system.

B. WIND ENERGY SYSTEMS GENERAL PROVISIONS.

a) All wind energy systems must conform to the provisions of this Ordinance; all county, state, and federal regulations and safety requirements; all applicable building codes, county codes, and airport area zoning ordinances; and all applicable industry standards, including those of the American National Standards Institute (ANSI).

b) The Township may revoke any approvals for, and require the removal of, any wind energy system that does not comply with this Ordinance.

c) Wind energy systems are permitted in the Township in the following districts, subject to all other applicable provisions of the Zoning Ordinance:

Type of System	Sub-Type of System	Zoning District	Special Use Permit
On-Site WES		All zoning districts as accessory use	Not required
Commercial WECS	WECS Systems	RD: Research and Development	Required
	WECS Testing Facilities	RD: Research and Development	Required

C. ON-SITE WIND ENERGY SYSTEMS. An On-site wind energy system is an accessory use that shall meet the following standards:

1. Designed to primarily serve the needs of a home, farm, or small business.
2. Shall have a tower height of sixty five (65) feet or less.
3. Property Set-back: The distance between an On-site wind energy system and the owner's property lines shall be equal to the height of the wind energy system tower including the top of the blade in its vertical position. The distance between a MET tower and the owner's property lines shall be equal to or greater than the height of the tower. No part of the wind energy system structure, including guy wire anchors, may extend closer than ten feet to the owner's property lines, or the distance of the required setback in the respective zoning district, whichever results in the greater setback.
4. Sound Pressure Level: On-site wind energy systems shall not exceed 40 dB(A) at the property line closest to the wind energy system. This sound pressure level may be exceeded during short-term events such as utility outages and/or severe wind storms. If the ambient sound pressure level exceeds 40 dB(A), the standard shall be ambient dB(A) plus 5 dB(A).
5. Construction Codes, Towers, & Interconnection Standards: On-site wind energy systems including towers shall comply with all applicable state construction and electrical codes and local building permit requirements. On-site wind energy systems including towers shall comply with Federal Aviation Administration requirements, the Michigan Airport Zoning Act (Public Act 23 of 1950, MCL 259.431 *et seq.*), the Michigan Tall Structures Act (Public Act 259 of 1959, MCL 259.481 *et seq.*), and local jurisdiction airport overlay zone regulations. An interconnected On-site wind energy system shall comply with Michigan Public Service Commission and Federal Energy Regulatory Commission standards. Off-grid systems are exempt from this requirement.
6. Safety: An On-site wind energy system shall have automatic braking, governing, or a feathering system to prevent uncontrolled rotation or over speeding. All wind towers shall have lightning protection. If a tower is supported by guy wires, the wires shall be clearly visible to a height of at least six feet above the guy wire anchors. The minimum vertical blade tip clearance from grade shall be 20 feet for a wind energy system employing a horizontal axis rotor.
7. LAND USE PERMIT Application Requirements: In addition to the standard information required on a Land Use Permit Application form, applications for an on-site wind energy system shall also include the following information/documentation:
 - a) A site plan (drawn to scale) showing the proposed location of all components and ancillary equipment of the on-site wind energy system, lot lines, physical

dimensions of the lot, existing building(s), setback lines, right-of-way lines, public easements, overhead utility lines, sidewalks, non-motorized pathways, public and private streets, and contours. The site plan must also include adjoining lots as well as the location and use of all structures.

- b) The proposed number, type, and total height of the on-site wind energy system to be constructed; including the manufacturer and model, product specifications including maximum noise output (measured in decibels), total rated generating capacity, dimensions, rotor diameter, and a description of ancillary facilities.
- c) Documented compliance with the noise requirements set forth in this Ordinance.
- d) Documented compliance with applicable Township, County, state and federal regulations including, but not limited to, all applicable safety, construction, environmental, electrical, communications, and FAA requirements.
- e) Evidence that the utility company has been informed of the customer's intent to install an interconnected, customer-owned generator and that such connection has been approved. Off-grid systems shall be exempt from this requirement.
- f) A description of the methods that will be used to perform maintenance on the system and the procedures for lowering or removing the system in order to conduct maintenance.
- g) Verification that the on-site wind energy system shall not interfere with communication systems such as, but not limited to, radio, telephone, television, satellite, or emergency communication systems.
- h) Other relevant information as may be reasonably requested by the Township.

D. UTILITY GRID WIND ENERGY SYSTEM

1. Application Requirements

- a) Applicability. The requirements in this subsection apply to all Commercial WECS and WECS Testing Facilities. Any reference to "Commercial WECS" in this subsection also includes WECS Testing Facilities.
- b) Township approvals required. A special land use permit and site plan approval are required for all WECS.
- c) Application contents. An application for a special land use permit for a WECS must include all of the following. The Township is not required to accept or process an incomplete or facially insufficient application.
 - 1. *Fee*. Application fee in an amount set by resolution of the Township Board.

2. *Parcel Information.* A list of all parcel numbers that will be used by the WECS; documentation establishing ownership of each parcel; and any lease agreements, land contracts, licenses, easements, or purchase agreements for the subject parcels.
3. *Operations Agreement.* An operations agreement setting forth the operations parameters, the name and contact information of the certified operator, the applicant's inspection protocol, emergency procedures, and general safety documentation.
4. *Visual Depiction.* Current photographs of the subject property and a visual depiction (computer generated) of the subject property with the WECS installed, viewed from multiple perspectives.
5. *Site Plan.* A site plan that complies with the Zoning Ordinance and that includes:
 - i. the locations and heights of all proposed structures and the location of all equipment, transformers, substations, towers, electrical lines (underground), guy wires, guy wire anchors, and other structures;
 - ii. the locations and height of all adjacent buildings, structures, and above-ground utilities;
 - iii. the location, dimensions, composition, and proposed maintenance plan for all access driveways;
 - iv. all setbacks and the location of property lines, signage, fences, greenbelts and screening, drain tiles, easements, floodplains, bodies of water, and road rights of way; and
 - v. a depiction of how the WECS will be connected to the power grid.
6. *Power Purchase Agreement.* A copy of the applicant's power purchase agreement or other written agreement with an electric utility showing approval of an interconnection with the proposed WECS.
7. *Maintenance Plan.* A written plan for maintaining any WECS located on the subject property, including a plan for maintaining and inspecting drain tiles and addressing stormwater management.
8. *Decommissioning Plan.* A decommissioning and land reclamation plan describing the actions to be taken following the abandonment or discontinuation of the WECS, including evidence of proposed commitments with property owners to ensure proper final reclamation, repairs to roads, and other steps necessary to fully remove the WECS and

restore the subject parcels. The decommissioning plan must include the following information:

- i. the useful life of each type and size of turbine in the project;
 - ii. the anticipated life of the project;
 - iii. the estimated decommissioning costs net of salvage value in current dollars;
 - iv. a method of ensuring that funds will be available for decommissioning and restoration;
 - v. the anticipated manner in which the project will be decommissioned and the site restored to original condition; and
 - vi. a detailed policy and process book for the repair, replacement, and removal of malfunctioning, defective, worn, or non-compliant WECS components.
9. *Waste.* A plan for managing any hazardous waste and other refuse from the construction or operation of the WECS, including a description of the disposal plan for obsolete, damaged, or retired equipment (including turbines).
 10. *Security Plan.* A description of the security system that will be used to protect the WECS from trespassing and vandalism and to protect the public health, safety, and welfare.
 11. *Transportation Plan.* A transportation plan for construction and operation phases, including any applicable agreements with the Livingston County Road Commission and Michigan Department of Transportation, which is subject to the Township's review and approval.
 12. *Environmental Assessment.* A written environmental assessment or impact study conducted by a qualified professional, which must evaluate the impact of the proposed WECS on rare or endangered species, eagles, birds, wildlife, rare or endangered plant species, and waterways. The study must be based on data from within a three-mile radius of the Township's boundaries.
 13. *Sound Modeling Report.* A sound modeling report for the project, which must include a map with sound contour lines for dB(A) Leq 1 second and dB(C) Leq 1 second sound emitted from the proposed WECS. The study must include a map (at 1:8000 scale or bigger) showing sound contours at 5 dB intervals, proposed wind turbine locations, participating and non-participating properties, and all occupied and unoccupied buildings. The applicant must identify each operational component of a wind turbine that

will produce sound that will be audible at the property line of a non-participating parcel. The predicted values must include cumulative sound levels created by all existing, approved, and proposed turbines. The sound model and accompanying map must extend out to the 30 dB sound pressure contour line or 1 mile from a wind turbine generator, whichever is furthest from the nearest wind turbine.

The modeling and analysis must confirm that the WECS will not exceed the maximum permitted sound pressure levels or the maximum permitted infrasonic acoustic pressure oscillations. Modeling and analysis must:

- i. comply with IEC 61400 and ISO 9613,
- ii. be set for the worst-case environment, such as high humidity (90%), frozen ground (non-porous), no ground cover ($G=0$), low temperature (below 0°C), and stable wind (Pasquill stability classes E and F), and
- iii. include the WECS Manufacturer's uncertainty factor (minimum 2 dB) and the ISO 9613 uncertainty factor (minimum 3 dB).

Modeling can be based on the WECS manufacturer data. However, measured data from existing and similar WECS facilities must be submitted with the modeling report.

14. *Background Sound Study.* A written pre-construction background (ambient) sound study performed by a qualified professional, which must indicate the Leq 1, Leq 10, and Leq 90 sound levels using A-weighting and C-weighting, with data collected at the nearest non-participating property line. Measurement procedures must follow the most recent versions of ANSI S12.18 and ANSI S12.9, Part 3 guideline (with an observer present). Measurements must 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, including one Sunday, and produce data that includes 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). The sound study must report for the period of the monitoring all topography, temperature, weather patterns, sources of ambient sound, and prevailing wind direction.
15. *Economic Impact Study.* A written economic impact study for the area affected by the WECS, including a forecast of the impact on jobs, tax revenue, lease payments, property values, and the growth of residential and business areas within the Township.
16. *Fire and Emergency Plan.* A written fire suppression and emergency response plan, which must include an unredacted safety manual for each

type and size of turbine proposed in the project, as well as safety data sheets that include the type and quantity of all materials used in the operation of all equipment, including all lubricants and coolants.

17. *Stray Voltage Assessment.* A written report of stray voltage analyses, which must include a preconstruction stray voltage test performed by a qualified professional on all Michigan Department of Agriculture & Rural Development (MDARD) registered livestock facilities located within a one-mile radius of the parcels on which the WECS will be constructed. The applicant must seek written permission from property owners prior to conducting testing on their property. The applicant is not required to perform testing on property for which the owners have refused to grant permission to conduct the testing.
18. *Lighting Plan.* A written lighting plan identifying the planned number and location of lights, light color, activation methods, and whether any lights blink. The lighting plan must comply with lighting requirements in this Ordinance.
19. *Shadow Flicker Analysis.* A written shadow flicker analysis and report describing potential shadow flicker created by each proposed wind turbine at all non-participating property lines with direct line-of-sight to a wind turbine.
20. *Automatic De-Icing System.* A description of the automatic de-icing system that the WECS will use to detect, heat, and melt ice on all turbine blades.
21. *Security and Escrow.* Deposit of the financial security and escrow accounts as required by this Ordinance.
22. *Insurance.* Proof of the insurance required under this Ordinance.
23. *Complaint Resolution Plan.* A plan for resolving complaints from the public or other property owners concerning the construction and operation of the WECS in compliance with this Ordinance.
24. *Compliance Certification.* Certification that the applicant has complied or will comply with all applicable state and federal laws and regulations. The applicant must provide a list of all permits, approvals, or authorizations required for the WECS by any local, county, state, or federal government or their agencies. The applicant must submit copies of all permits and approvals that have been obtained or applied for at the time of the application. Note: Land enrolled in Michigan Farmland Preservation Program through Part 361 of the Natural Resources and Environmental Protection Act, 1994 Act 451 as amended, more commonly known as PA 116, must receive approval from MDARD to locate a WECS on the property and provide documentation to the Township prior to construction. **All**

permits and approvals must be obtained before the applicant or operator begins any phase of construction, as further set forth in this Ordinance.

25. *Indemnification.* An attestation that the applicant will indemnify and hold the Township harmless from any costs or liability arising from the approval, installation, construction, maintenance, use, repair, or removal of the WECS.

26. *Additional Compliance Information.* To the extent not already provided in the items above, a description of how the WECS will comply with the standards and requirements of this Ordinance.

d) Duty to supplement. The applicant has a continuing duty to supplement its application with information or documents that fulfill any of the application requirements. The applicant must also provide any additional information or documentation requested by the Planning Commission, Township Board, or other Township representative at any time, including after approval of the WECS.

e) Adequate review time. The applicant must submit all application materials at least 30 days before any Planning Commission meeting at which the application is to be discussed. The Planning Commission and Township are not obligated to consider any material that is not timely submitted. The Planning Commission or Township staff may, however, require the applicant to provide additional or supplemental information or documents at any time.

f) Facially insufficient applications. The Planning Commission is not obligated to consider or hold a public hearing on an application if the proposed WECS, based on the application and supporting materials, does not meet the requirements of this Ordinance as determined by the Township Zoning Administrator. By way of example and not limitation, if a proposed WECS will not include automatic de-icing systems on all turbines as required under this Ordinance, then the Zoning Administrator may determine that the application is facially insufficient. The applicant may appeal the Township Zoning Administrator's decision of facial insufficiency to the Zoning Board of Appeals.

2. Standards.

a) Maximum Noise Levels. Noise levels produced by the WECS must not exceed 40 dB(A) Leq 1 second or 50 dB(C) Leq 1 second at any time on a non-participating property. The Township Board may, in its sole discretion, allow a higher noise level only if the owner of the non-participating property signs a waiver consenting to a specific higher noise level and the waiver is recorded with the Livingston County Register of Deeds.

1. Noise Compliance. The Township may, from time to time, measure whether the WECS is complying with the maximum noise levels under this

Ordinance. Compliance measurements are the financial responsibility of the applicant or operator and must be independently performed by a qualified professional selected by the Township.

2. Noise Measurement. The measurements require an observer to be present. All noise measurements will exclude contributions from wind on microphone, tree/leaf rustle, flowing water, and natural sounds such as tree frogs and insects. The wind velocity at the sound measurement microphone must be between 2m/s (4.5 mph) and 4.5m/s (9 mph) during measurements. During testing of elevated sources, including WECS systems, the atmospheric profile must be relatively calm, Pasquill Stability Class D or calmer during the day and Class E or calmer during the Night.
3. Noise Level During Measurements. Noise measurements will be conducted consistent with ANSI S12.18 Procedures for Outdoor Measurement of Sound Pressure Level 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.
4. Tonal Noise. Tonal noise will be assessed using unweighted (linear) 1/3 octave band noise measurements with time-series, level-versus-time data acquisition. A measurement constitutes prima facie evidence of a tonal noise condition 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 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).
5. Sample Metric and Rate. Noise level measurements for essentially continuous non-time-varying noise sources will be acquired using the Leq(Fast) metric at a sample rate of 1-per-second. For fluctuating or modulating noise sources, including wind turbines, a 10-per-second sample rate will be used. These sample rates apply to dB(A), dB(C) and unweighted 1/3 octave band measurements.
6. Reporting. Measurements of time-varying dB(A) and dB(C) noise levels and 1/3 octave band levels will be reported with time-series level-versus-time graphs and tables. Graphs will show the sound levels graphed as level-versus-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 will be produced. For 10-per-second sampling, a 30-second-or-longer graph will be produced. Reporting and graphs must clearly identify what was heard and when the noise source is dominating the measurement. The report must include all noise data and information on weather conditions and Pasquill Class if an elevated source is measured. All

measured data must be accompanied by SCADA data confirming full power operation during testing of the WECS systems.

7. Measurable Infrasonic Acoustic Sound Pressure Levels. Measurable infrasonic acoustic sound pressure level from the WECS must be less than 50 dB as totalized in the range of 0.1-20 Hz, using low-pass filtering, or by computing the log-subtraction of the Fast, C-weighted (dB(C) level from the Fast, unweighted SPL, at any location, outdoors or indoors, on non-participating property. Time-level-averaging, if used, must be limited to 1-second or faster sampling. A minimum sampling rate of at least 10 times per second is required.
8. Post-Construction Sound Survey. At least two months after the WECS is operational, the Township may select a third-party qualified professional to survey the sound pressure levels of the WECS. The applicant and operator must cooperate with the survey. All costs of the survey, including the professional's fees, will be paid by the applicant or operator. The Township will determine the locations at which sound levels are to be measured. To the extent possible, the study will follow the procedures for Type 1 Sound Level Testing and ANSI S12.9 Part 3 (with an observer present) and ANSI S12.18. All sound pressure levels will be measured with instruments that meet ANSI or IEC Type 1 Precision integrating sound level meter performance specifications. The applicator or operator must supply all data requested by the Township or the third party conducting the survey, specifically including one-second interval SCADA data and any other SCADA data that is requested.

b) Setback.

1. Property Line. Each turbine in a WECS shall be at least 2500feet from any property line of a Non-Participating Landowner .
2. Right of Way. Each turbine in a WECS shall be at least 1.5 times the height of the tower away from any public right of way.
3. Body of Water. Each turbine shall be at least 2.5 miles away from the nearest body of water.

c) Maximum Height. The maximum tower height of a WECS must not exceed 300 feet.

d) Shadow Flicker. A WECS must not produce any shadow flicker on non-participating properties unless the record owners of all non-participating properties have signed a release, which must be recorded with the Livingston County Register of Deeds.

- e) Ground Clearance. The minimum clearance from ground level to the blade at its lowest point must be at least 100 feet.
- f) Blade Clearance. Blade arcs created by a WECS must have a minimum of 100 feet of clearance over and away from any structure.
- g) Braking. Each WECS must be equipped with a braking or equivalent device, capable of stopping the WECS operation in high winds with or without SCADA control. The braking system must be effective during complete grid power failure when WECS are unable to communicate with SCADA control or receive power.
- h) Appearance. All turbines and towers must be painted a non-obtrusive, neutral color, such as beige, gray, or off-white and must be non-reflective. All turbine bases and blades must be the same color and must be consistent with the color of other WECS in the Township. No advertisements, graphics, or striping are permitted on the blades or towers. The applicant is encouraged to select anti-icing paint that prevents the formation of ice on the surface of the turbine's blades.
- i) Automatic De-Icing System. All turbines must be equipped with technology that automatically de-ices the turbine blades. The system must detect ice and heat the blades, such as through the use of built-in carbon heating mats or through the circulation of hot air.
- j) Signage. The site of the WECS must have (1) a sign for each turbine or tower posted near a public road right-of-way (on security fencing near any fence entryway); and (2) a sign attached to the base of each turbine or tower. The signs must be at least two square feet in area and must include the following information:
 - 1. A warning of high voltage.
 - 2. A warning of loud noise.
 - 3. Notice of potential health risks.
 - 4. Names of the applicant, operator, and real property owner.
 - 5. Emergency telephone number, alternate telephone number, and web address.
 - 6. Unique identification, such as an address. If more than one WECS is on an access drive, units must have further identification so they can be easily identified by emergency responders.
- k) Security Fencing. Security fencing must be installed around all turbines and all electrical equipment related to the WECS, including any transformers and transfer stations. The applicant and operator must comply with the security plan filed with

the special land use applications, with any amendments required by the Planning Commission at the time of approval of the special land use permit.

- l) No Communication Interference. A WECS must not interfere with any radio, television, or other communication systems. If the Township or the applicant or operator of the WECS receive a complaint about communication interference, the applicant or operator must resolve the interference immediately and provide proof that the interference has been resolved within 90 days.
- m) Underground Lines. All electrical connection systems and lines from the WECS to the electrical grid connection must be located underground at a depth of at least 20 feet below grade and at such deeper depth as may be required by applicable industry standards. The Planning Commission may grant exceptions to this requirement if the topography of the site makes underground lines impossible or unreasonably impracticable. The cost of locating lines underground is not a factor in determining impossibility or impracticability.
- n) Maintenance. All WECS must be maintained in good repair and good condition at all times. The applicant or operator must maintain a maintenance log and allow the Township to review the maintenance log at any time upon request.
- o) Lighting. Towers may be lit only to the minimum extent required by the FAA. All tower lighting required by the FAA must be shielded to the extent possible to reduce glare and visibility from the ground. The tower shaft must not be illuminated unless required by the FAA. RADAR activated lighting must be used if allowed by the FAA.
- p) Access Driveways. The WECS must be accessible by one or more access driveways to allow emergency vehicles in the event of a fire or other emergency. Access driveways must be located at least 1,000 feet from any non-participating parcel, unless the owner of the non-participating parcel has signed a waiver that is recorded with the Livingston County Register of Deeds.
- q) Road Repairs. If any public or private roads are damaged as a result of the construction or operation of the WECS, the applicant or operator must repair the damage at their expense pursuant to all Livingston County Road Commission requirements. Repairs must be performed within 90 days after construction is complete (but no more than 365 days after the damage occurs) or within 90 days after the damage occurs if the construction is already complete.
- r) Compliance with Plans. The applicant and operator must comply with all written plans submitted with the special land use application, with any modifications or additions required by the Planning Commission as part of its approval.

3. Miscellaneous

- a) Permits Required Before Construction Begins. All federal, state, county, and local permits and approvals must be obtained before the applicant or operator begin any phase of construction, including breaking ground or initiating construction on any portion of the WECS, such as the construction of turbine bases. By way of example and not limitation, all FAA approvals and permits for the turbines must be issued and in effect before any construction of turbine bases may begin, even if FAA approval is not required for the bases. Copies of these approvals must be provided to the Township as they are obtained.
- b) Insurance. The applicant or operator must obtain and maintain insurance in an amount of at least \$10,000,000 for the WECS, which must cover, at a minimum, liability, property damage, and livestock damage. The applicant or operator must provide proof of insurance to the Township on an annual basis.
- c) Financial Security. To ensure available funding for the removal of the WECS when it is abandoned or non-operational and restoration of the property, the applicant must post acceptable financial security. The security must be in the form of (1) a cash deposit, or (2) performance (surety) bond selected by the Township Board, and is subject to all of the following requirements:
1. The security must remain in effect until the WECS is decommissioned.
 2. The amount of the cash deposit or surety bond must be at least 1.5 times the estimated decommissioning cost for each wind turbine as determined by the Township's engineer.
 3. The amount of the security will be updated every five years at the rate of 1.5 times CPI (consumer price index) for each year.
 4. The security must be deposited or filed with the Township Clerk no later than 10 business days after a special land use permit has been approved.
 5. Failure to keep financial security in full force and effect at all times while the WECS exists constitutes a material violation of the special land use permit for which the Township may pursue any remedies available under this Ordinance, including revocation of the special land use permit.
- d) Decommissioning.
1. When any turbine or other component of the WECS ceases to actively produce power for 180 days or longer, the applicant, operator, or real property owner must remove the turbine or component and restore the property in accordance with the decommissioning plan filed with the Township as part of the special land use application. Upon request, the Township may grant a 90-day extension if the applicant or operator demonstrates that the turbine will be put back into use. The removal and restoration must be complete within 180 days after non-operation of the turbine. If the turbine will be put back into use and the new turbine does not use substantially the same equipment (i.e. height, rotor diameter,

characteristics, manufacturer, safety provisions) as was part of the original special land use permit approval, the applicant shall submit an application to amend the existing special land use permit in the same manner as the original application for the special land use permit pursuant to Chapter 16 and the equipment shall otherwise comply with the requirements and standards of this Ordinance.

2. The applicant, operator, or owner must obtain all permits necessary for the removal of a decommissioned turbine or component, including any necessary demolition permits.
 3. All underground wiring for the removed turbine or components must be removed upon decommissioning.
 4. If the applicant, operator, or owner fails to timely complete removal and restoration when required under this section, then the Township may have the turbine or other components removed and the property restored at the expense of the applicant or operator, drawing first from the financial security posted under this section. If the financial security is insufficient to fully fund removal and restoration, then the applicant, operator, and real property owner are jointly and severally liable for the remaining costs.
 5. In addition to the Township's costs of removal and restoration, the Township is also entitled to recover from the applicant, operator, and real property owner all fees and expenses of the Township's attorneys, engineers, consultants, and other professionals whose services are used in connection with removal and restoration.
 6. Failure by the applicant, operator, or owner to timely complete removal and restoration when required under this section constitutes a violation of this Ordinance. The Township may pursue all remedies, including enforcement action, fines, and revocation of the special land use permit.
 7. The property owner may waive the complete caisson removal and remove the caisson to a depth of eight feet if the property owner signs a waiver that is recorded with the Livingston Country Register of Deeds.
- e) Escrow account. The applicant must establish an escrow account when it submits its application for a WECS. The amount must equal an estimate of the total costs of (1) reviewing and processing the special use permit application and site plan, including publication and administrative costs and costs of the Township Attorney, Township Planner, and Township engineer; and (2) any professional studies or report prepared by the Township or on the Township's behalf to assist with its evaluation of the application.

The Township may draw from the escrow account to reimburse any of its costs or expenses incurred in reviewing, processing, and evaluating the application. The

Township may require the applicant to replenish the escrow account at any time to ensure a sufficient balance.

If the Township instructs the applicant to replenish the escrow account and the applicant fails to do so within 14 days after receiving notice, then the Township has no further obligation to process the applicant's application until the escrow account is replenished.

Any funds in the escrow account that exceed the Township's actual costs after the application is approved or denied (and after any and all appeals have been exhausted) will be returned to the applicant. The Township will provide an itemized statement to the applicant upon applicant's request.

- f) Complaint Resolution. Subject to the Township's review and approval during the special land use approval process, the applicant or operator must comply with a complaint resolution process. At a minimum, the complaint resolution process must include the following:
1. The applicant or operator will, at its expense, use a website, telephone line, or third-party service to receive complaints about the WECS.
 2. The applicant or operator will use its best efforts to respond to and resolve any complaints.
 3. The applicant or operator will establish an escrow account with the Township with a minimum of \$25,000 balance at all times to pay the cost of investigating complaints.
 4. The applicant or operator will forward each complaint, along with the applicant's or operator's response to each complaint, to the Township within 15 days after each complaint is received.
 5. The Township will investigate each complaint, with all expenses (including professional fees) drawn from the escrow account.
 6. At the Township's request, the applicant or operator must provide the Township with SCADA data from any turbine related to the complaint, which must include meteorological and performance data such as temperature, humidity, power output, wind velocities, and nacelle vector.
 7. Following its investigation, if the Township has reason to believe that that the applicant or owner has violated this Ordinance, the Township may take any actions permitted by law, including revoking the special land use permit following notice and an opportunity to be heard.
- g) Change in Ownership. A special land use permit granted for a WECS is transferrable. The proposed new WECS owner/operator must register with the

Township Clerk before the transfer of ownership or operation of the WECS. The new WECS owner/operator must comply with all requirements of this Ordinance and any special land use permit issued pursuant to this section and must maintain a financial security guarantee as required under this section.

- h) Extraordinary Events. If the WECS experiences a failure, fire, blade detachment, ice throw, leakage of hazardous materials, vandalism, property damage, personal injury, or other extraordinary or catastrophic event, the applicant or operator must notify the Township within 24 hours.
- i) Annual Report. The applicant or operator must submit a written report on or before January 1 of each year that includes all of the following:
 - 1. Current proof of insurance;
 - 2. Verification of financial security;
 - 3. A summary of all complaints, complaint resolutions, and extraordinary events; and
 - 4. A description of how the applicant or operator has complied with the written plans submitted in connection with its application.

4. Violations of Ordinance

- a) Following notice and an opportunity to be heard, the Township may revoke any approvals for, and require the removal of, any WECS that does not comply with this Ordinance.
- b) In addition to any other remedies, violations also constitute a municipal civil infraction in accordance with Section 18.4 of this Ordinance. Each day that a violation occurs or continues constitutes a separate offense and is subject to penalties or sanctions as a separate offense under Section 18.4.A.3.
- c) In addition to any other remedies set forth in this Ordinance, the Township may bring an action for damages or for an injunction or other action to restrain, prevent, or abate any violation of this Section.

Section 2. Severability. The various parts, sections and clauses of this Ordinance are hereby declared to be severable. If any part, sentence, paragraph, section or clause is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of the ordinance shall not be affected thereby.

Section 3. Effective Date. The Township Clerk shall cause a notice of adoption of this Ordinance to be published. This Ordinance shall become effective upon the expiration of 7 days after publication in a newspaper of general circulation in the Township.

YEAS: _____

NAYS: _____

ABSTAIN: _____

ABSENT: _____

CERTIFICATION

This true and complete copy of Ordinance No. ____ was declared adopted at a Regular Meeting of the _____ Township Board of Trustees held on _____, 2024, public notice of said meeting was given pursuant to MCL 125.3401(2) of the Zoning Enabling Act, Public Act 110 of 2006, as the same may be amended.

_____, Township
Supervisor

_____ TOWNSHIP

ORDINANCE NO. _____

**AN ORDINANCE TO AMEND THE ZONING ORDINANCE
TO REGULATE WIND ENERGY SYSTEMS**

The Township of _____ ordains:

Section 1. Adoption of New Section _____, Wind Energy System Overlay District

New Section _____, entitled “Wind Energy System Overlay District,” is added to the Zoning Ordinance and reads as follows:

Section _____ Wind Energy System Overlay District

Section 1. Purpose and Findings

A. Purpose. The Wind Energy System Overlay District (the “District”) is intended to provide suitable locations for utility-scale wind energy systems that are otherwise authorized under state law and the Township’s Code of Ordinances and Zoning Ordinance to meet a reasonable demonstrated need for this land use in the Township. It is the intent of the Township to permit these systems to the extent a demonstrated need exists for the land use by regulating the siting, design, construction, operation, monitoring, modification, and removal of such systems to protect the public health, safety, and welfare, and to ensure compatibility of land uses in the vicinity of wind energy systems. The Township seeks to preserve its rural character and agricultural heritage. To these ends, the lands included in this District are within reasonable proximity to existing electric power transmission infrastructure.

B. Findings. In establishing this overlay district, the Township of _____ finds as follows:

1. It is necessary and reasonable to permit utility-scale wind energy systems in the Township to the extent that there is a demonstrated need for that land use.
2. Land use for utility-scale wind energy systems beyond a reasonable and legitimate demonstrated need to provide for the Township’s energy needs would have needless adverse effects on surrounding businesses and residences, and be detrimental to the health, safety, welfare, and prosperity of the Township and its residents.
3. The Township wishes to preserve its existing topography and rural character, maintain property values, and protect and preserve the quality and pace of rural life of its residents while preserving the environment and protecting wildlife.
4. Wind Energy Systems can adversely impact the health, safety, welfare, and prosperity of that community, including existing property values, especially when in proximity to farms, forests, and residential properties.
5. Wind Energy Systems shall be carefully managed to reduce the adverse long-term effects such land use can have on the productivity of farmland. See University of Michigan Graham Sustainability Institute & Michigan State University Extension, “Planning & Zoning for Wind Energy Systems.”

6. Several Michigan communities have suffered, or are suffering, from fiscal uncertainty due to litigation and rule changes concerning taxation arising from rural renewable energy production.

7. _____ Township contributes significant storm water runoff into adjacent municipalities because of relative elevations, and therefore the Township values low-impact development to better manage its stormwater runoff.

8. Impervious surfaces such as wind turbines channel stormwater runoff, and support posts and trenching are likely to damage drain tiles. Thus, Utility Scale Wind Energy Systems must be carefully sited, designed, and limited in scope.

9. The Township adopts these land use regulations to balance any demonstrated need for utility-scale wind energy systems in the Township with the public, health, and safety impacts identified above.

Section 2. Delineation of the Wind Energy System Overlay District

A. The Wind Energy System Overlay District overlays existing zoning districts delineated on the official _____ Township Zoning Map. The boundaries of the Wind Energy System Overlay District are depicted on Map A, incorporated herein by reference, and consists of approximately 50 acres.

Section 3. Permitted Uses.

There are no uses permitted by right in the Wind Energy System Overlay District, other than uses permitted by right in the underlying zoning districts.

Section 4. Special Land Uses.

The following uses are permitted following approval by the Planning Commission as a Special Land Use in the Wind Energy System Overlay District as regulated by Article 5 (special land uses) and Article 4 (site plan review).

Utility-Scale Wind Energy Systems

Section 2. Amendment of Section _____ of the Zoning Ordinance Section

_____ of the Zoning Ordinance, entitled "Establishment of Districts," is amended to add the following:

6. Overlay District

WES Wind Energy System

Section 3. Addition of Definitions to _____ of the Township Zoning Ordinance

The following definitions are added to _____ of the Township Zoning Ordinance, consistent with the existing ordering of definitions in that section:

A. Private Wind Energy System: A Wind Energy System used exclusively for private purposes and not used for any commercial resale of any energy, except for the sale of surplus electrical energy back to the electrical grid.

B. Wind Energy System (WECS): Any part of a system that collects or stores wind radiation or energy for the purpose of transforming it into any other form of usable energy, including the collection and transfer of heat created by wind energy to any other medium by any means.

C. Utility-Scale Wind Energy System: A Wind Energy System in which the principal design, purpose, or use is to provide energy to off-site uses or the wholesale or retail sale of generated electricity to any person or entity.

D. Non-Participating Property: A property that is not subject to a Utility Scale Wind Energy System lease or easement agreement at the time an application is submitted for a Special Land Use for the purposes of constructing a Utility Scale Wind Energy System.

E. Participating Property: A property that participates in a lease or easement agreement, or other contractual agreement, with or that is owned by an entity submitting a Special Land Use Permit application for the purpose of developing a Utility Scale Wind Energy System.

F. Owner/Operator: A person or entity that owns or operates a Utility Scale Wind Energy System. "Owner/operator," even when used in the singular, may refer to more than one person or entity if there are multiple owners or operators, or the Utility Scale Wind Energy System is owned and operated by different entities. "Owner/operator" includes any successor to the original owner/operator. "Owner/operator" may or may not be the same as the applicant.

Section 4. Repeal of Existing Section _____ and Ordinance _____ ; Addition of New Section _____, entitled "Wind Energy Systems"

The current Section _____, entitled "Wind Energy System," as well as all regulations in Ordinance _____ are repealed in their entirety. New Section _____, entitled "Wind Energy Systems," is added to the Township's Zoning Ordinance and reads as follows:

Section _____ . Wind Energy Systems.

- A. General Provisions. All Wind Energy Systems are subject to the following requirements:
1. All Wind Energy Systems shall conform to the provisions of this Ordinance and all county, state, and federal regulations and safety requirements, including applicable building codes and applicable industry standards, including those of the American National Standards Institute (ANSI), Underwriter Laboratory (UL), National Electrical Code (NEC), National Fire Protection Association (NFPA), and the most current Michigan Uniform Building Code adopted by the enforcing agencies.
 2. If an applicant, operator, or landowner of a Wind Energy System fails to comply with this Ordinance, the Township, in addition to any other remedy under this Ordinance, may revoke any approvals after giving the applicant notice and an opportunity to be heard. Additionally, the Township may pursue any legal or equitable action to abate a violation and recover any and all costs, including the Township's actual attorney fees and costs.

B. Private Wind Energy Systems.

1. Administrative Review. Except as provided in subsection (d) below, all Private Wind Energy Systems require administrative approval as follows:

a. Application to Zoning Administrator. An applicant who seeks to install a Private Wind Energy System shall submit an application to the Zoning Administrator on a form approved by the Township Board.

b. Application Requirements. The application shall include:

1. A site plan depicting setbacks, turbine size, and the location of property lines, buildings, fences, greenbelts, and road right of ways. The site plan shall be drawn to scale.
2. Photographs of the property's existing condition.
3. Renderings or catalogue cuts of the proposed wind energy equipment.
4. A certificate of compliance demonstrating that the system has been tested and approved by Underwriters Laboratories (UL) or other approved independent testing agency acceptable to Township.
5. A copy of the manufacturer's installation directions.

c. Zoning Administrator Authority. The Zoning Administrator is authorized to approve, approve with conditions, or deny applications for Private Wind Energy Systems. An aggrieved party may appeal the Zoning Administrator's decision to the Zoning Board of Appeals pursuant to Article 6 of the Zoning Ordinance.

d. Exclusions from Administrative Review. Administrative review is not required for repair and replacement of existing wind energy equipment if there is no expansion of the size or area of the wind energy equipment.

2. Private Wind Energy System. Private Wind Energy Systems are permitted in all zoning districts as an accessory use, subject to administrative approval as set forth in this section and subject to the following requirements:

a. Safety. A Private Wind Energy System shall be installed, maintained, and used only in accordance with the manufacturer's instructions, and it shall comply with all applicable construction code and electric code including the most current version of the Michigan Uniform Building Code and National Electrical Code adopted by the enforcing agencies.

b. Building Permit. A building permit is required.

c. Maximum Height. The total height of a Private WECS with the blade fully extended must not exceed 90 feet. The minimum clearance from ground level to the blade at its lowest point must be 30 feet.

d. Location. The minimum setback of a Private WECS from any property line or road right-of-way must equal three times the total height of the unit (with the WECS blade at its highest point).

e. Private WECS must comply with the noise limits set forth in this Ordinance.

f. Underground Transmission. All power transmission or other lines, wires, or conduits from a Private Wind Energy System to any building or other structure shall be located underground. If batteries are used as part of the Private Wind Energy System, they shall be placed in a secured container or enclosure.

C. Utility-Scale Wind Energy Systems. Utility-Scale Wind Energy Systems are permitted by Special Land Use approval in the Wind Energy System Overlay District and require a special land use permit under Article 5 and site plan approval under Article 4. Utility-Scale Wind Energy Systems are also subject to the following requirements:

1. Special Land Use Permit Application Requirements. In addition to the requirements of Article 5, the applicant for a Utility-Scale Wind Energy System shall provide the Township with all of the following:

a. Application fee in an amount set by resolution or fee schedule approved by the Township Board.

b. A deposit for an escrow account in an amount set by resolution or fee schedule approved by the Township Board. The escrow account is used to cover all costs and expenses associated with the special land use review and/or approval process, which costs can include, but are not limited to, review fees of the Township Attorney, Township Planner, and Township Engineer, as well as any reports or studies which the Township anticipates will be required during the review and/or approval process for the application. At any point during the review process, the Township may require that the applicant place additional monies into escrow with the Township if the existing escrowed funds on account with the Township will be insufficient, in the determination of the Township, to cover any remaining costs or expenses with the review and/or approval process. If additional funds are required by the Township to be placed in escrow and the applicant refuses to do so within 14 days after receiving notice, the Township will cease the zoning review and/or approval process until and unless the applicant makes the required escrow deposit. Any escrow amounts in excess of actual cost will be returned to the applicant. An itemized billing of all expenses will be provided to the applicant upon request.

c. A list of all parcel numbers that will be used by the Utility-Scale Wind Energy System; documentation establishing ownership of each parcel; and any and all lease or option agreements, easements, or purchase agreements for the subject parcels, together with any attachments to such agreements or easements.

d. An operations agreement setting forth the operations parameters, the name and contact information of the certified operator, the applicant's inspection protocol, emergency procedures, and general safety documentation.

e. Federal Employer Identification Number for current owner/operator is required at the time of application.

f. A written emergency response plan detailing the applicant's plan for responding to emergencies, including fire emergencies, and analyzing whether adequate resources exist to respond to fires and other emergencies. If adequate resources do not exist, the applicant shall identify its plan for providing those resources. The emergency plan shall include identification of potential hazards to adjacent properties, public roadways, and to the community in general that may be created, as well as plans for immediate cleanup, long-term monitoring, and continued mitigation efforts following an emergency.

g. A written description of the fire suppression system that will be installed, which shall identify the manufacturer of the fire suppression system and generally describe its operations and capacity to extinguish fires.

- h. A written description of specialized training and/or equipment necessary for handling fires and/or other emergencies at the Utility Scale Wind Energy System site. The training plan must include, at a minimum, annual emergency response training for local firefighters and other local emergency personnel at the site of the Utility-Scale Wind Energy System.
- i. A complete set of photographs, video, and topography map of the entire Participating Property prior to construction.
- j. A copy of any power purchase agreement or other written agreement that the applicant has with an electric utility or any agreement or approval for interconnection between the proposed Utility-Scale Wind Energy System and an electric utility or transmission company.
- k. A written plan conforming to the requirements of this ordinance for maintaining the subject property, including a plan for maintaining and inspecting drain tiles and addressing stormwater management.
- l. A decommissioning and land reclamation plan describing the actions to be taken following the abandonment or discontinuation of the Utility-Scale Wind Energy System, including evidence of proposed commitments with property owners to ensure proper final reclamation, repairs to roads, and other steps necessary to fully remove the Utility-Scale Wind Energy System and restore the subject parcels to as near as possible to the condition the subject parcels were in prior to being used as a Utility-Scale Wind Energy System.
- m. Financial security that meets the requirements of this ordinance.
- n. A plan for resolving complaints regarding but not limited to noise, glare, maintenance, and drainage from the public or other property owners concerning the construction and operation of the Utility-Scale Wind Energy System.
- o. Identification of and a plan for managing any hazardous waste.
- p. A transportation plan for construction and operation phases, including any applicable agreements with the Ingham County Road Commission and Michigan Department of Transportation.
- q. An attestation that the applicant and owner of the subject property will indemnify and hold the Township and its officials, elected or appointed, harmless from any costs or liability arising from the approval, installation, construction, maintenance, use, repair, or removal of the Utility-Scale Wind Energy System.
- r. A copy of the manufacturer's directions, instruction manual, and specification sheets including any unredacted safety manuals and Safety Data Sheets (SDS), for installing, maintaining, and using the Utility-Scale Wind Energy System.
- s. A ground cover vegetation establishment and management plan that complies with this ordinance.
- t. Proof of environmental compliance, including compliance with:
 - i. Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act; (MCL 324.3101 et. seq.);

ii. Part 91, Soil Erosion and Sedimentation Control (MCL 324.9101 et. seq.) and any corresponding County ordinances;

iii. Part 301, Inland Lakes and Streams, (MCL 324.30101 et. seq.);

iv. Part 303, Wetlands (MCL 324.30301 et. seq.);

v. Part 365, Endangered Species Protection (MCL324.36501 et. seq.);

and any other applicable laws and rules in force at the time the application is considered by the Township.

u. Any additional information or documentation requested by the Planning Commission, Township Board, or other Township representative.

v. Insurance. Proof of the owner/operator's public liability insurance shall be provided at the time of application. If the applicant is approved, proof of insurance shall be provided to the Township annually thereafter. The policy shall provide for bodily injury and property damage and shall name _____ Township and each Participating Property owner as an additional insured. The owner/operator shall insure for liability for the utility scale wind system until removed for at least \$25,000,000 per occurrence to protect the owner/operator, Township, and Participating Property owner. Proof of a current policy is required annually and shall be provided each year to the Township prior to the anniversary date of the Special Land Use Permit.

w. Compliance with the Michigan Uniform Building Code and National Electric Safety Code: Construction of a Utility Wind Energy Facility shall comply with the most current version of the Michigan Uniform Building Code and National Electrical Code adopted by the enforcing agencies as a condition of any Special Land Use Permit under this section.

x. Conceptual plan. A graphical computer generated depiction of how the Utility-Scale Wind Energy System will appear from all directions.

2. Site Plan Application Requirements.

a. Contents of Site Plan. In addition to the requirements in Article 4, the applicant shall, at its expense, provide a detailed application and site plan drafted to a scale of 1" = 200 feet with the following:

1. Location of all proposed structures, turbines, equipment, transformers, and substations.

2. Location of all existing structures or dwellings on the parcel and location of all existing structures or dwelling on adjacent Non-Participating Property within 1000 feet of the property lines of any Participating Properties.

3. Depiction of all setbacks, property lines, fences, signs, greenbelts, screening, drain tiles, easements, flood plains, bodies of water, proposed access routes, and road rights of way.

4. Indication of how and where the system will be connected to the power grid.

5. Plan for any land clearing and grading required for the installation and operation of the system.

6. Plan for ground cover establishment and management.

7. Anticipated construction schedule and completion date. As a condition of any special land use or site plan approval, hours of construction shall be limited to Monday through Friday from 7:00 a.m. to 5:00 p.m. with no construction on Saturday, Sunday, or any federally recognized holiday.

8. Sound modeling study including sound isolines extending from the sound sources to the property lines.

9. Any additional studies requested by the Planning Commission, including but not limited to the following:

a. Visual Impact Assessment: A technical analysis by a third party qualified professional approved by the Township at applicant/owner's expense of the visual impacts of the proposed project, including a description of the project, the existing visual landscape, and important scenic resources, plus visual simulations that show what the project will look like (including proposed landscaping and other screening measures), a description of potential project impacts, and mitigation measures that would help to reduce the visual impacts created by the project.

b. Environmental Analysis: An analysis by a third-party qualified professional approved by the Township at applicant/owner's expense to identify and assess any potential impacts on the natural environment including, but not limited to, removal of trees, wetlands and other fragile ecosystems, wildlife, endangered and threatened species. If required, the analysis will identify all appropriate measures to minimize, eliminate or mitigate adverse impacts identified and show those measures on the site plan, where applicable.

c. Stormwater Study: An analysis by a third-party qualified professional approved by the Township at applicant/owner's expense studying the proposed layout of the Utility-Scale Wind Energy System and how the spacing, row separation, and slope affects stormwater infiltration, including calculations for a 100-year rain event. Percolation tests or site-specific soil information shall be provided to demonstrate infiltration on-site without the use of engineered solutions.

d. Glare Study: An analysis by a third-party qualified professional approved by the Township at applicant/owner's expense to determine if glare from the Utility-Scale Wind Energy System will be visible from nearby airports, air strips, residences, and roadways. The analysis will consider the changing position of the sun throughout the day and year and its influences on the utility-scale wind energy system.

e. Optional Conceptual Layout Plan. Applicants shall submit an optional conceptual layout plan for review prior to submission of a formal site plan. The conceptual site plan shall be reviewed by the Planning Commission to allow for discussion and feedback.

10. Approvals from Other Agencies. Final site plan approval may be granted only after the applicant receives all required federal, state and local approvals, including any applicable approval by the state historic preservation office. Applicant shall provide copies of all

review letters, final approved plans, and reports issued by any other governing agencies to the Township.

11. The site plan must show the existing topographical grades in two-foot intervals and conditions of all Participating Property at the time of application.

12. A baseline soil test including Cation Exchange Capacity (CEC) shall be provided to the township prior to any construction.

13. A written description of how the applicant will address dust control during construction. Such plan shall, at a minimum, consist of water applications at least three times per day unless it has rained in the preceding three hours of the planned application.

14. Water Usage and Cleaning. The applicant shall detail the methodology planned for cleaning the wind turbines, frequency, and listing of any and all detergents, surfactants, chemical solutions used for each cleaning, and sources of water used to facilitate turbine restoration and maintenance.

3. Application Items as Substantive Requirements. The information, plans, documents, and other items identified as application requirements in this ordinance, including the site plan and special land use permit, are substantive requirements for obtaining approval for a Utility-Scale Wind Energy System. The Planning Commission is to review the sufficiency of the application materials. If the Planning Commission determines that the substance of any application item is insufficient to protect the public health, safety, and welfare, the Planning Commission shall deny approval on that basis.

4. System and Location Requirements.

a. Utility-Scale Wind Energy Systems are to be located only in the Wind Energy System Overlay District.

b. The minimum setback from any property line of a Non-Participating Landowner or any road right-of-way is 3,000 feet or five times the Tip Height of each turbine in the Utility-Scale WECS, whichever is larger. Additionally, each turbine must be located at least 0.5 miles from the nearest lake or body of water. If a single Utility-Scale Wind Energy System is located on more than one lot, or if the adjacent parcel is owned by the same owner as the property on which the Utility-Scale Wind Energy System is located, then the lot line setbacks of this subsection do not apply to the lot lines shared by those lots.

c. The maximum height of a Utility-Scale WECS with the blade fully extended must not exceed 300 feet.

d. The minimum clearance from ground level to the blade at its lowest point must be at least 100 feet.

e. Blade arcs created by a Utility-Scale WECS must have a minimum of 100 feet of clearance over and away from any structure.

f. Each Utility-Scale WECS must be equipped with a braking or equivalent device, capable of stopping the Utility-Scale WECS operation in high winds with or without SCADA control. The braking system must be effective during complete grid power failure when Utility-Scale WECS are unable to communicate with SCADA control or receive power.

g. All turbines must be equipped with technology that automatically de-ices the turbine blades. The system must detect ice and heat the blades, such as through the use of built-in carbon heating mats or through the circulation of hot air.

5. Permits. All required county, state, and federal permits shall be obtained before the Utility-Scale Wind Energy System begins operating.

6. Appearance. All turbines and towers must be painted a non-obtrusive, neutral color, such as beige, gray, or off-white and must be non-reflective. All turbines bases and blades must be the same color and must be consistent with the color of other Utility-Scale WECS in the Township. No advertisements, graphics, or striping are permitted on the blades or towers. The applicant is encouraged to select anti-icing paint that prevents the formation of ice on the surface of the turbine's blades.

7. Lighting. Lighting of the Utility-Scale Wind Energy System is limited to the minimum light necessary for safe operation. Towers may be lit only to the minimum extent required by the FAA.

8. Security Fencing.

a. Security fencing may be required by the Planning Commission to be installed around all electrical equipment related to the Utility-Scale Wind Energy System, including any transformers. Fencing shall be at least seven feet tall and be composed of woven agricultural wire. Barbed and razor wire is prohibited.

b. A containment system shall surround any transformers in case of hazardous waste or oil spills.

c. Appropriate warning signs shall be posted at safe intervals at the entrance and around the perimeter of the Utility-Scale Wind Energy System.

d. Gate posts and corner posts shall have a concrete foundation.

e. Gates shall be the same height and constructed of the same material as the fencing. Access, such as Knox box, shall be provided for emergency responders.

f. The Township may allow or require a fence design to allow for the passage of wildlife upon a finding that adequate access control and visual screening will be preserved.

g. Security fencing is subject to setback requirements. The security fence shall be locked, and a self-locking device shall be used. Lock boxes and keys (may be electronic such as keypad opener, if the passcode is provided to the Township and central dispatch for 911 service) shall be provided at locked entrances for emergency personnel access. Electric fencing is not permitted. A safety plan shall be in place and updated regularly with the local fire department having jurisdiction over the Utility-Scale Wind Energy System.

9. Noise. All sound measurements are to be instantaneous and shall not be averaged. The noise generated by a Utility-Scale Wind Energy System shall not exceed the following limits:

a. 40 dBA Lmax, as measured at the property line, between the hours of 7:00 a.m. and 9:00 p.m.

b. 35 dBA Lmax, as measured at the property line, between the hours of 9:00 p.m. and 7:00 a.m.

c. The owner/operator of the Utility Scale Wind Energy System shall annually provide for a sound analysis or modeling, conducted by an auditory expert chosen by the Township, at the expense of the applicant.

10. Underground Transmission. All power transmission, communication, or other lines, wires, or conduits from a Utility-Scale Wind Energy System to any building or other structure shall be located underground at a depth that complies with current National Electrical Code standards, except for power switchyards or the area within a substation.

11. Drain Tile Inspections. The Utility-Scale Wind Energy System shall be maintained in working condition at all times while in operation. The owner/operator shall hire, at its own expense, a third-party contractor approved by the Township to identify and inspect all drain tiles at least once every two years by means of a robotic camera, with the first inspection occurring post construction but before the Utility-Scale Wind Energy System is in operation. The owner/operator shall submit proof of the inspection to the Township. The owner/operator shall repair any damage or failure of the drain tile within 60 days after discovery and submit proof of the repair to the Township. The Township is entitled, but not required, to have a representative present at each inspection or to conduct an independent inspection.

12. Fire Suppression. The Utility-Scale Wind Energy System shall include a fire suppression system that is specifically designed to immediately suppress and extinguish fires in any part of the Wind Energy System, including the turbines, electrical equipment, and transformers. The owner/operator shall provide documentation establishing the effectiveness of the fire suppression system and the results of a third-party independent inspection (approved by the Township) of the fire suppression system. The fire suppression system shall also be reviewed and approved by local EMS.

13. Battery Storage. Commercial grid storage batteries or capacitor banks storing or returning supplemental power to the grid are not permitted in the District. Use of Batteries in commercial applications is only permitted as emergency backup for safety lighting and related computer infrastructures.

14. A Utility-Scale WECS must not interfere with any radio, television, or other communication systems. If the Township or the applicant or operator of the Utility-Scale WECS receive a complaint about communication interference, the applicant or operator must resolve the interference immediately and provide proof that the interference has been resolved within 90 days.

15. Stray Voltage Assessments: No stray voltage originating from a Utility Scale Wind Energy System may be detected on any Participating or Non-Participating property. A preconstruction stray voltage test shall be conducted on all Michigan Department of Agriculture & Rural Development (MDARD) registered livestock facilities located within a one-mile radius of the Participating Properties. The tests shall be performed by an investigator approved by the Township at the applicant/owner's expense. A report of the tests shall be provided to the owners of all property included in the study area. The applicant/landowner shall seek written permission from the property owners prior to conducting testing on such owners' property. Applicants/landowners shall not be required to perform testing on property where the owners have refused to grant permission to conduct the testing. The owner of any Participating Property included in the list of project parcels shall not refuse the stray voltage testing if they have a MDARD registered livestock facility on the Participating Property.

16. Drainage. Drainage on the site shall be maintained in a manner consistent with, or improved upon, existing natural drainage patterns. Any disturbance to drainage or water management practices shall be managed within the property and on-site in order to not negatively impact surrounding properties as a result of the development. This shall be maintained for the duration of the operation and shall be able to be returned to pre-existing conditions following decommissioning. Any existing drainage tiles that are identified on the property shall be shown on the as-built drawings submitted following construction. Prior to the start of construction, any existing drain tile shall be inspected by a third-party contractor approved

by the Township, at applicant/owner's expense by robotic camera and the imagery submitted to the Township for baseline documentation on tile condition. Any damage shall be repaired, and a report submitted to the landowner and Township. While the facility is in operation, the owner/operator shall reinspect the drain tiles every two years by robotic camera for any damage and shall repair any damage within 60 days of discovery. The owner/operator shall report the inspection, along with any damage and repair, to the Township within 90 days after each two-year deadline. The Township reserves the right to have the Building Inspector or other agent present at the time of repair. Wind turbine support structures and/or foundations shall be constructed to preserve any drainage field tile or system.

17. Access Routes. Access drives are subject to the approval of the Ingham County Road Commission to the extent of the Road Commission's jurisdiction. All access drives and roads within the site shall be adequately maintained for emergency vehicle use, including winter maintenance.

18. The owner/operator shall submit an As Built Drawing with dimensions relative to property lines of all new structures including turbines and buried cable both inside and outside fenced areas upon completion and before any power is supplied to the grid. The As Built Drawing shall be a scale of 1" =200 feet.

19. Signs. Signs are permitted but shall comply with Article 22. The lot shall include at least one sign identifying the owner and providing a 24-hour emergency contact telephone number.

20. Emergency Action Plan and Training. Before the Utility Wind Energy System is operational, the owner/operator shall provide the necessary training, equipment, or agreements specified in the application to Township or other emergency personnel.

21. Decommissioning and/or Abandonment.

a. If a Utility-Scale Wind Energy System is abandoned or otherwise non-operational for a period of six months, the owner/operator shall notify the Township and shall remove the system within six months after the date of abandonment. Removal requires receipt of a demolition permit and full restoration of the site in accordance with the provisions of this Ordinance and to the satisfaction of the Zoning Administrator. Decommissioning shall include the removal of each turbine, all buildings, electrical components, foundations and roads, as well as any other associated facilities. The site shall be filled and covered with topsoil and restored to a state compatible with the surrounding vegetation. The requirements of this subsection also apply to a Utility-Scale Wind Energy System that is never fully completed or operational if construction has been halted for a period six months.

b. The decommissioning plan shall be written to provide security to the Township for 125% of the cost to remove and dispose of all turbines, removal of all wiring, footings, and pilings, (regardless of depth), and restoration of the land to its original condition. The value of decommissioning shall be determined by a third-party financial consultant or engineer selected by the Township and paid for by the developer. The decommissioning security shall be paid in cash to the Township. Once the value of decommissioning is determined, it shall be updated on a periodic basis of not less than every 2 years and additional security shall be required based on the average inflation rate of the preceding 2 years.

c. All abandonment and decommissioning work shall be done when soil is dry as determined by a third-party soil expert approved by the Township at the applicant/owner's expense.

- d. The ground shall be restored to its original topography within three hundred sixty-five (365) days of abandonment or decommissioning. An extension may be granted if a good faith effort has been demonstrated and any delay is not the result of actions or inaction of the owner/operator.
- e. If land balancing is required, all topsoil will be saved and spread evenly over balanced area according to the existing topography map provided at the time of application.
- f. An annual report shall be provided to the Zoning Administrator showing continuity of operation and shall notify the Zoning Administrator if the use is to cease, prior to decommissioning, or abandonment.
- g. Continuing Obligations: Failure to keep any required financial security in full force and effect at all times while a Utility Wind Energy System exists or is in place shall constitute a material and significant violation of the Special Land Use Permit, and this Ordinance, and will subject the Utility Wind Energy System owner/operator (jointly and severally, if more there is more than one owner or operator) to all remedies available to the Township, including any enforcement action, civil action, request for injunctive relief, and revocation of the Special Land Use Permit.
- h. The Township shall have the right to seek injunctive relief to effect or complete decommissioning, as well as the right to seek reimbursement from the owner/operator or landowner for decommissioning costs in excess of the amount deposited in escrow and to file a lien against any real property owned by the owner/operator or landowner for the amount of the excess, and to take all steps allowed by law to enforce said lien.
- i. At the time of decommissioning, the Planning Commission may allow deviations from the above decommissioning requirements following notice and a public hearing in accordance with Section 103 of the Zoning Enabling Act.

22. Complaint Resolution. Utility Wind Energy Systems shall provide a complaint resolution process, as described below:

- a. The site shall have signs posted with contact information to collect complaints related to the Utility Wind Energy System.
- b. A log shall be kept by the owner/operator of all complaints received and shall be available to Township officials for review at the Township's request.
- c. The owner/operator shall respond to complainants within ten (10) business days and shall provide notification to the Zoning Administrator.
- d. Any resolution shall include lawful and reasonable solutions consistent with the Zoning Ordinance, which shall also be provided to the Zoning Administrator.
- e. The owner/operator or its assigns reserve the right to adjudicate any claims made against it, including residential claims, in a court of competent jurisdiction. An annual report shall be submitted to the Zoning Administrator and the Township Board that details all complaints received, the status of complaint resolution, and actions taken to mitigate complaints.

23. Maintenance and Repair

- a. Each Utility-Scale Wind Energy System shall be kept and maintained in good repair and condition at all times and the site shall be neat, clean, and free of refuse, waste, or unsightly, hazardous, or unsanitary conditions. All wind turbines damaged beyond repair or use shall be

replaced and removed from the project site within seven (7) days and shall be disposed of off-site in accordance with any state or federal requirements. Applicant/owner may request an extension of this seven-day requirement, in writing, which may be granted at the discretion of the Planning Commission.

b. If the Township Board or Zoning Administrator determines that a Utility Scale Wind Energy System fails to meet the requirements of this Ordinance or the Special Land Use Permit, the Zoning Administrator or Township Board shall provide notice to the owner/operator of the non-compliance, and the owner/operator has 14 days to cure the violation. If the violation is a safety hazard as determined by the Zoning Administrator or Township Board, then the owner and/or operator has 7 days to cure the violation. If the owner and/or operator has not remedied non-compliance issues in the aforementioned time periods, the owner/operator shall immediately shut down the Utility Scale Wind Energy System and shall not operate, start or restart the Utility Scale Wind Energy System until the issues have been resolved. If the owner/operator fails to bring the operation into compliance, the Township may seek relief at law or equity to abate the nuisance and may also issue a municipal civil infraction citation. Each violation for which the owner/operator are deemed responsible shall result in a \$500.00 fine. Each day shall constitute a new violation.

c. The owner/operator shall keep a maintenance log on the wind turbine(s), which shall be available for the Township's review within 48 hours of such request.

d. General Maintenance Bond. At the time of the Special Land Use application, the owner/operator shall submit two (2) third-party contractor bids for construction of all fencing, landscaping, and drainage improvements associated with the utility scale wind energy system. A performance bond in the amount of 125% of the higher bid shall be provided to the Township in cash to ensure completion. The Township may use the bond to complete or repair any landscaping, fencing, or drainage infrastructure (including drain tiles).

24. Extraordinary Events. If the Utility-Scale Wind Energy System experiences a failure, fire, leakage of hazardous materials, personal injury, or other extraordinary or catastrophic event, the owner/operator shall notify the Township within 8 hours.

25. Annual Report. The owner/operator shall submit a report on or before January 1 of each year that includes all of the following:

a. Amount of electric generation;

b. Current proof of insurance with the township and Participating Property owner(s) shown as named insured;

c. Verification of financial security; and

d. A summary of all complaints, complaint resolutions, and extraordinary events.

Additionally, a representative of the owner/operator shall appear before the Planning Commission annually to report on the Utility-Scale Wind Energy System and address questions or concerns from the Planning Commission.

26. Inspections. The Township may inspect a Utility-Scale Wind Energy System at any time by providing 24 hours advance notice to the owner/operator.

27. Transferability. A special use permit for a Utility-Scale Wind Energy System is transferable to a new owner. The new owner shall register its name, Federal Employer Identification Number, and business address 30 days prior to the transfer date with the Township and shall comply with this Ordinance and all approvals and conditions issued by the Township. In the event of a sale or transfer of ownership and/or operation of the wind facility, the original escrow shall be maintained throughout the entirety of the process and shall not be altered.

28. Major and Minor Site Plan Amendments.

a. Major site plan amendments include those listed in Section 4.06(A)(1) and any of the following:

1. Changes of the location of turbines, fencing, buildings, or ancillary equipment by 10 feet or more.
2. Any increase in the height of wind turbines.

b. Minor site plan amendments include those listed in section 4.06(A)(2) and any of the following:

1. Changes of the location of turbines, fencing, buildings, or ancillary equipment by less than 10 feet.

29. Remedies. If an owner/operator fails to comply with this Ordinance, the Township, in addition to any other remedy under this Ordinance, shall revoke the special land use permit and site plan approval after giving the owner/operator notice and an opportunity to be heard. Additionally, the Township may pursue any legal or equitable action to abate a violation and recover any and all costs, including the Township's actual attorney fees and costs.

Section 5. Validity and Severability.

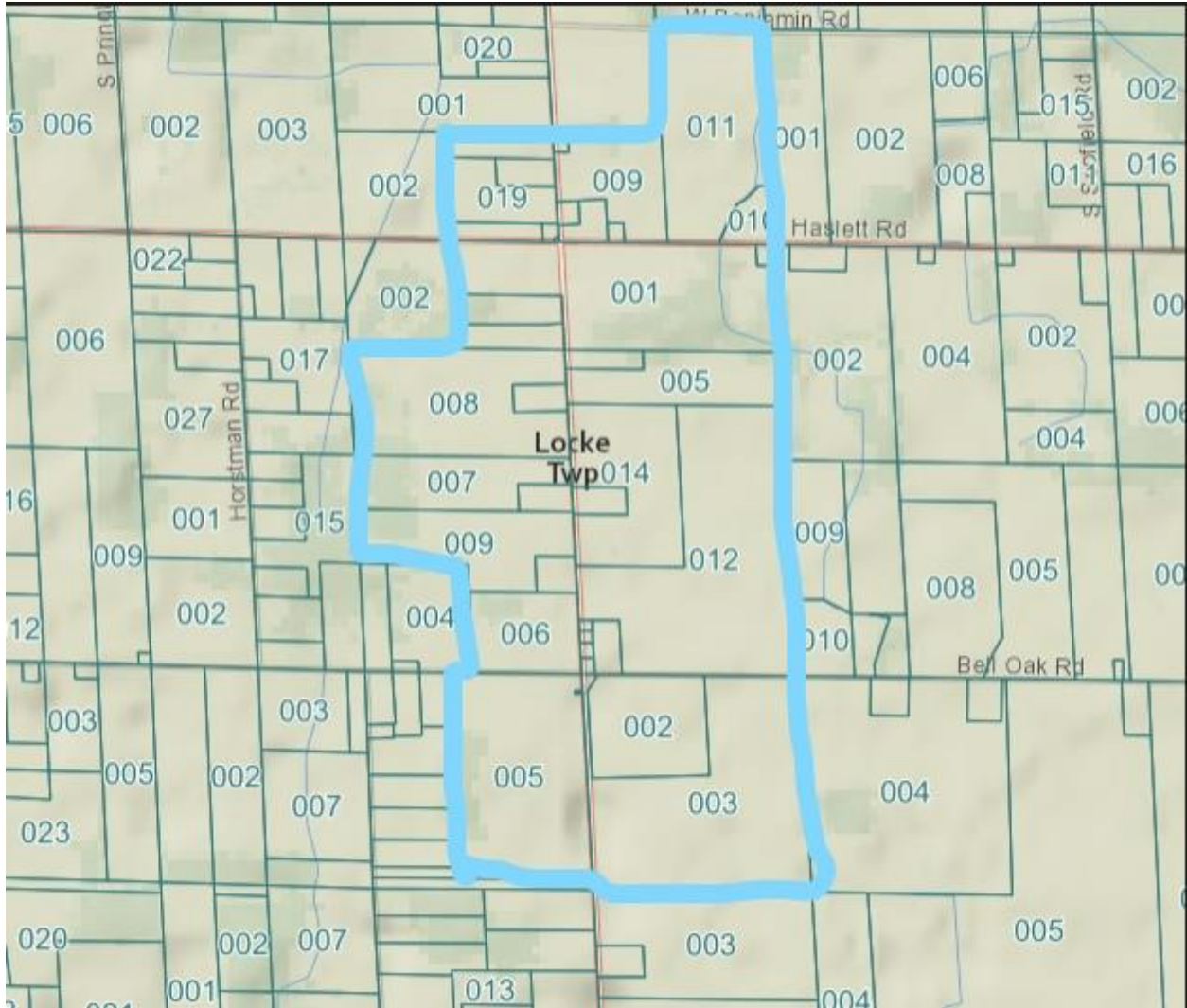
If any portion of this Ordinance is found invalid for any reason, such holding will not affect the validity of the remaining portions of this Ordinance.

Section 6. Repealer.

All other ordinances inconsistent with the provisions of this Ordinance are hereby repealed to the extent necessary to give this Ordinance full force and effect.

Section 7. Effective Date. This Ordinance takes effect seven days after publication as provided by law.

MAP A
OVERLAY DISTRICT BOUNDARIES



88690:00001:7279896-3

_____ TOWNSHIP

ORDINANCE NO. _____

**AN ORDINANCE TO AMEND THE ZONING ORDINANCE
TO REGULATE UTILITY-SCALE BATTERY ENERGY STORAGE SYSTEMS**

The Township of _____ ordains:

Section 1. Add Definitions to Section _____.

The following definitions are added to Section _____ of the Zoning Ordinance, and will be placed in the Zoning Ordinances so that all definitions are in alphabetical order:

- A. Battery management system: An electronic regulator that manages a Utility-Scale Battery Energy Storage System by monitoring individual battery module voltages and temperatures, container temperature and humidity, off-gassing of combustible gas, fire, ground fault and DC surge, and door access and capable of shutting down the system before operating outside safe parameters.
- B. Utility-scale battery energy storage facilities: One or more devices, assembled together, capable of storing energy in order to supply electrical energy, including battery cells used for absorbing, storing, and discharging electrical energy in a Utility-Scale Battery Energy Storage System ("BESS") with a battery management system ("BMS").
- C. Utility-Scale Battery Energy Storage System: A physical container providing secondary containment to battery cells that is equipped with cooling, ventilation, fire suppression, and a battery management system.

Section 2. Add New Section _____, entitled "Utility-Scale Battery Energy Storage Systems"

Section 437, entitled "Utility-Scale Battery Energy Storage Systems," is added to Article 4 of the Township's Zoning Ordinance. The section reads in its entirety as follows:

Section _____ . Utility-Scale Battery Energy Storage Systems.

- A. **General Provisions.** All Utility-Scale Battery Energy Storage Systems are subject to the following requirements:

- 1. All Utility-Scale Battery Energy Storage Systems must conform to the provisions of this Ordinance and all county, state, and federal regulations and safety requirements, including applicable building codes, applicable industry standards, and NFPA 855 "Standard for the Installation of Stationary Energy Storage Systems"
- 2. The Township Planning Commission may revoke any approvals for, and require the removal of, any Utility-Scale Battery Energy Storage System that does not comply with this Ordinance, in accordance with this Zoning Ordinance.

3. Utility-Scale Battery Energy Storage Systems are permitted in the Township as a special use in the following zoning districts:

a. AG – Agricultural Enterprise District

B. Application Requirements. The applicant for a Utility-Scale Battery Energy Storage System must provide the Township with all of the following:

1. Application fee in an amount set by resolution of the Township Board.
2. A list of all parcel numbers that will be used by the Utility-Scale Battery Energy Storage System; documentation establishing ownership of each parcel; and any lease agreements, easements, or purchase agreements for the subject parcels.
3. An operations agreement setting forth the operations parameters, the name and contact information of the operator, the applicant’s inspection protocol, emergency procedures, and general safety documentation.
4. Current photographs of the subject property.
5. A site plan that includes all proposed structures and the location of all equipment, as well as all setbacks, the location of property lines, signage, fences, greenbelts and screening, drain tiles, easements, floodplains, bodies of water, proposed access routes, and road right of ways. The site plan must be drawn to scale and must indicate how the Utility-Scale Battery Energy Storage System will be connected to the power grid.
6. A copy of the applicant’s power purchase agreement or other written agreement with an electric utility showing approval of an interconnection with the proposed Utility-Scale Battery Energy Storage System.
7. A written plan for maintaining the subject property, including a plan for maintaining and inspecting drain tiles and addressing stormwater management, which is subject to the Township’s review and approval.
8. A decommissioning and land reclamation plan describing the actions to be taken following the abandonment or discontinuation of the Utility-Scale Battery Energy Storage System, including evidence of proposed commitments with property owners to ensure proper final reclamation, repairs to roads, and other steps necessary to fully remove the Utility-Scale Battery Energy Storage System and restore the subject parcels, which is subject to the Township’s review and approval.
9. Financial security that meets the requirements of this Section, which is subject to the Township’s review and approval.
10. A plan for resolving complaints from the public or other property owners concerning the construction and operation of the Utility-Scale Battery Energy Storage System, which is subject to the Township’s review and approval.

11. A plan for managing any hazardous waste, which is subject to the Township's review and approval.

12. A transportation plan for construction and operation phases, including any applicable agreements with the County Road Commission and Michigan Department of Transportation, which is subject to the Township's review and approval.

13. An attestation that the applicant will indemnify and hold the Township harmless from any costs or liability arising from the approval, installation, construction, maintenance, use, repair, or removal of the Utility-Scale Battery Energy Storage System, which is subject to the Township's review and approval.

14. Proof of environmental compliance, including compliance with Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act; (MCL 324.3101 et. seq.; Part 91, Soil Erosion and Sedimentation Control (MCL 324.9101 et. seq.) and any corresponding County ordinances; Part 301, Inland Lakes and Streams, (MCL 324.30101 et. seq.); Part 303, Wetlands (MCL 324.30301 et. seq.); Part 365, Endangered Species Protection (MCL324.36501 et. seq.); and any other applicable laws and rules in force at the time the application is considered by the Township

15. Any additional information or documentation requested by the Planning Commission, Township Board, or other Township representative.

C. System and Location Requirements.

1. *Minimum Acreage.* Utility-Scale Battery Energy Storage Systems must be located on parcels of land acres in size or larger.

2. *Lot Area Coverage.* No more than % of the total lot area may be covered by a Utility-Scale Battery Energy Storage System.

3. *Setbacks.* Utility-Scale Battery Energy Storage Systems must be set back at least feet from all [lot lines / occupied community buildings and dwellings on nonparticipating properties / public road rights-of-way]. If a single Utility-Scale Battery Energy Storage System is located on more than one lot, then the lot-line setbacks of this subsection do not apply to the lot lines shared by those lots.

4. *Screening.* Greenbelt screening is required around any Utility-Scale Battery Energy Storage System and around any equipment associated with the system to obscure, to the greatest extent possible, the Utility-Scale Battery Energy Storage System from any adjacent residences. The greenbelt must consist of shrubbery, trees, or other non-invasive plant species that provide a visual screen. In lieu of a planting greenbelt, a decorative fence that is at least 50% opaque and that meets the requirements of this Ordinance applicable to fences may be used if approved by the Planning Commission.

5. *Lighting.* Lighting of the Utility-Scale Battery Energy Storage System is limited to the minimum light necessary for safe operation. Illumination from any lighting must not extend beyond the perimeter of the lot(s) used for the Utility-Scale Battery Energy Storage System. The

Utility-Scale Battery Energy Storage System must not produce any glare that is visible to neighboring lots or to persons traveling on public or private roads.

6. *Security Fencing.* Security fencing must be installed around all electrical equipment related to the Utility-Scale Battery Energy Storage System. Appropriate warning signs must be posted at safe intervals at the entrance and around the perimeter of the Utility-Scale Battery Energy Storage System.

7. *Noise.* The noise generated by a Commercial Utility-Scale Battery Energy Storage System must not exceed _____ dBA Lmax / A-weighted scale, as measured at the property line of any adjacent parcel / nearest outer wall of the nearest dwelling located on an adjacent nonparticipating property.

8. *Underground Transmission.* All power transmission or other lines, wires, or conduits from a Utility-Scale Battery Energy Storage System to any building or other structure must be located underground at a depth that complies with current National Electrical Code standards, except for power switchyards or the area within a substation.

9. *Drain Tile Inspections.* The Utility-Scale Battery Energy Storage System must be maintained in working condition at all times while in operation. The applicant or operator must inspect all drain tile at least once every three years by means of robotic camera, with the first inspection occurring before the Utility-Scale Battery Energy Storage System is in operation. The applicant or operator must submit proof of the inspection to the Township. The owner or operator must repair any damage or failure of the drain tile within sixty (60) days after discovery and submit proof of the repair to the Township. The Township is entitled, but not required, to have a representative present at each inspection or to conduct an independent inspection.

10. *Insurance.* The applicant or operator will maintain property/casualty insurance and general commercial liability insurance in an amount of at least \$5 million per occurrence.

11. *Permits.* All required county, state, and federal permits must be obtained before the Utility-Scale Battery Energy Storage System begins operating.

12. *Decommissioning.* If a Utility-Scale Battery Energy Storage System is abandoned or otherwise nonoperational for a period of one year, the property owner or the operator must notify the Township and must remove the system within six (6) months after the date of abandonment. Removal requires receipt of a demolition permit from the Building Official and full restoration of the site to the satisfaction of the Zoning Administrator. The site must be filled and covered with top soil and restored to a state compatible with the surrounding vegetation. The requirements of this subsection also apply to a Utility-Scale Battery Energy Storage System that is never fully completed or operational if construction has been halted for a period of one (1) year.

13. *Financial Security.* To ensure proper decommissioning of a Commercial Utility-Scale Battery Energy Storage System upon abandonment, the applicant must post financial security in the form of a security bond, escrow payment, or irrevocable letter of credit in an amount equal to 125% of the total estimated cost of decommissioning, code enforcement, and reclamation, which cost estimate must be approved by the Township. The operator and the Township will review the amount of the financial security every two (2) years to ensure that the amount remains

adequate. This financial security must be posted within fifteen (15) business days after approval of the special use application.

14. *Extraordinary Events.* If the Utility-Scale Battery Energy Storage System experiences a failure, fire, leakage of hazardous materials, personal injury, or other extraordinary or catastrophic event, the applicant or operator must notify the Township within 24 hours.

15. *Annual Report.* The applicant or operator must submit a report on or before January 1 of each year that includes all of the following:

- a. Current proof of insurance;
- b. Verification of financial security; and
- c. A summary of all complaints, complaint resolutions, and extraordinary events.

16. *Inspections.* The Township may inspect a Utility-Scale Battery Energy Storage System at any time by providing 24 hours advance notice to the applicant or operator.

17. *Transferability.* A special use permit for a Utility-Scale Battery Energy Storage System is transferable to a new owner. The new owner must register its name and business address with the Township and must comply with this Ordinance and all approvals and conditions issued by the Township.

18. *Remedies.* If an applicant or operator fails to comply with this Ordinance, the Township, in addition to any other remedy under this Ordinance, may revoke the special use permit and site plan approval after giving the applicant or operator notice and an opportunity to be heard. Additionally, the Township may pursue any legal or equitable action to abate a violation and recover any and all costs, including the Township's actual attorney fees and costs.

D. Utility-Scale Battery Energy Storage Systems under PA 233.

On or after November 29, 2024, if PA 233 of 2023 is in effect, then the following provisions apply to Utility-Scale Battery Energy Storage Systems with a nameplate capacity of 50 megawatts or more and an energy discharge capability of 200 megawatt hours or more. To the extent these provisions conflict with the provisions in Section 437 above, these provisions control as to such Utility-Scale Battery Energy Storage Systems. This subsection does not apply if PA 233 of 2023 does not take effect and does not apply to Utility-Scale Battery Energy Storage Systems with a nameplate capacity of less than 50 megawatts and an energy discharge capability of less than 200 megawatt hours.

1. *Setbacks.* Utility-Scale Battery Energy Storage Systems must comply with the following minimum setback requirements, with setback distances measured from the nearest edge of the perimeter fencing of the facility:

Setback Description	Setback Distance
Occupied community buildings and dwellings on nonparticipating properties	300 feet from the nearest point on the outer wall
Public road right-of-way	50 feet measured from the nearest edge of a public road right-of-way
Nonparticipating parties	50 feet measured from the nearest shared property line

2. *NFPA Standard.* Utility-Scale Battery Energy Storage Systems must comply with the version of NFPA 855 “Standard for the Installation of Stationary Energy Storage Systems” in effect on the effective date of the amendatory act that added this section or any applicable successor standard adopted by the commission as reasonable and consistent with the purposes of this subdivision.

3. *Noise.* The Utility-Scale Battery Energy Storage System must not generate a maximum sound in excess of 55 average hourly decibels as modeled at the nearest outer wall of the nearest dwelling located on an adjacent nonparticipating property. Decibel modeling shall use the A-weighted scale as designed by the American National Standards Institute.

4. *Lighting.* The Utility-Scale Battery Energy Storage System must implement dark sky-friendly lighting solutions.

5. *Environmental Regulations.* The Utility-Scale Battery Energy Storage System must comply with applicable state or federal environmental regulations.

6. *Host community agreement.* The applicant shall enter into a host community agreement with the Township. The host community agreement shall require that, upon commencement of any operation, the Utility-Scale Battery Energy Storage System owner must pay the Township \$2,000.00 per megawatt of nameplate capacity. The payment shall be used as determined by the Township for police, fire, public safety, or other infrastructure, or for other projects as agreed to by the local unit and the applicant.

Section 3. Amend Section 306.

Section 306(c) of the Zoning Ordinance, entitled “Special Land Uses” for the AG Agricultural Enterprise District, is amended to add “Utility-Scale Battery Energy Storage System subject to Section 437” as a special land use in the AG district.

Section 4. Validity and Severability.

If any portion of this Ordinance is found invalid for any reason, such holding will not affect the validity of the remaining portions of this Ordinance.

Section 5. Repealer.

All other ordinances inconsistent with the provisions of this Ordinance are hereby repealed to the extent necessary to give this Ordinance full force and effect.

Section 6. Effective Date.

This Ordinance takes effect seven (7) days after publication as provided by law.

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