

Algansee Township Planning Commission Minutes

Call to Order: Chair Rodney Carpenter called the meeting to order at 7:01 P.M. held at the Pine Ridge Church at 280 S. Ray Quincy Road, Quincy, MI 49082

Members Present: Chair Rodney Carpenter, Vice Chair Glenn Preston, Secretary Sharon Atkinson, Craig Fichtelberg, and Township Representative Jason Shilling

Absences: None

Also Present: Christopher Khorey and see Attached Sign In Sheet

Attachments: 1. Sign In Sheet
2. Zoning Administrator Report
3. Solar Energy Ordinance Draft
4. Wind Energy Ordinance Draft

Approval of Agenda: Rodney Carpenter recommended amending the agenda to delay the new business to allow additional time for Christopher Khorey to attend the meeting, Glenn Preston made a motion to approve an amended agenda, supported by Craig Fichtelberg, motion carried.

Approval of Minutes: Glenn Preston made a motion to accept the minutes of 29 June 2021, supported by Jason Shilling, motion carried.

Report from Zoning Administrator: 5 Zoning Permits were issued ~~June~~ July 2021 see attached report.

Report from Township Representative: Nothing to report.

Report from ZBA Representative: ZBA did not meet in July 2021

Old Business: None

New Business:

1. **Solar Energy Ordinance** – Christopher Khorey gave an overview of the ordinance, floor was opened up for public questions and discussion:
 1. Matt Milligan asked about the distance from property line and road, answered with 250 feet from property lines and 50 feet from road
 2. Norm Wasielewski asked about solar panels in municipalities, and why ordinance was being written, explained need to have something in place to address issue
 2. Jennifer Milligan stated hopes there are stringent setbacks, transmission lines concern and cost to remove when no longer functional. Answered concerns on setbacks, zoning cannot dictate transmission lines and there is a bond which is reviewed and increased every 3 years.

2. **Wind Energy Ordinance** – Christopher Khorey gave an overview of the ordinance, floor was opened up for public questions and discussion:

1. Jennifer Milligan questioned height and difference from other townships.
2. Norm Wasielewski asked how does it keep land AG allowing Wind Farms, state law exclusionary zoning is not permitted have to have a pathway.
3. Matt Ashenfelter stated believe that request for height increase will come.
4. Christopher Khorey explained process of request to increase height.
5. Jason Shilling asked how tall Jonesville turbines were, believe 500 feet.
6. Matt Milligan request to change height to 330 feet vice 410 feet in height.
7. Jennifer Milligan asked Christopher Khorey about process with Madison and Sherwood.
8. Doug Everline asked how does this pertain to me with a 10 acre property, Christopher Khorey explained can do maximum height of 120 feet.
9. Matt Milligan asked who will pay for damage to roads from installation of wind turbines, county pays for road maintenance on main roads, township pays for secondary roads.

Chair Rodney Carpenter closed public discussion for board to discuss changes, vote for any changes and approval of ordinances.

Planning Commission discussed proposed changes for Wind Energy Ordinance:

Proposed Changes

Section 14.12 D.1.b. height from 410 to 330 feet, and remove sections i., ii., iii., Glenn Preston made a motion to accept the change, support from Craig Fichtelberg, motion carried.

Section 14.12 D.1.d. change the word paragraphs to subsection, Sharon Atkinson made a motion to accept the change, support from Glenn Preston, motion carried.

Section 14.12 D.3. Renummer to allow a new a. to be inserted to read, “No large turbine/utility grid WECS or associated Met tower shall be erected on any parcel that does not have direct access to a County Primary Road”, Glenn Preston made a motion to accept the change, support from Jason Shilling, motion carried.

Rodney Carpenter Chair moved to have a motion to approve the ordinances and send to the Alganssee Township Board for consideration and approval.

Glenn Preston made a motion to accept and approve the Solar Energy Ordinance as written and send to the Alganssee Township Board for consideration and approval, support from Craig Fichtelberg, motion carried.

Sharon Atkinson made a motion to accept and approve the Wind Energy Ordinance with approved changes and send to the Alganssee Township Board for consideration and approval, support from Jason Shilling, motion carried.

Public Comment: None

Next Meeting: 24 August 2021

Sharon Atkinson moved to adjourn the meeting, support from Glenn Preston, motion carried.

Submitted by

Sharon Atkinson, Secretary

NAME	ADDRESS
Anna Jensen	159 DONS DR
Norm WASIELEWSKI	757 LAKESHORE PT
TERESA WASIELEWSKI	757 LAKESHORE PT.
Mary Alanis	241 Brocklebank Rd.
Matt Milligan	241 Brocklebank Rd.
JENNIFER MILLIGAN	241 BROCKLEBANK ROAD
Jennifer phony	395 Ray County
James Carol Burton	936 Stockwell
Doug Everline	855 E. Central Rd
KELLY KAUFMAN	1200 Browne Rd

Zoning Permits Issued July 2021		Alganssee Township Zoning Administrator - Matt Ashenfelter						
Permit #	Property Owner	Address	Parcel Code #	Type	Structure	Date	Fees Paid	
1125	Girard Nash	Brown Rd	120-033-300-005-12	A3	36 x 56 call barn & 18 x 24 stick-built shop on foundation w/ 12 x 28 enclosed lean-to	7/13/2021	\$40.00	
1236	Eklhar Chris	827 Lester Rd	120-032-100-01C-01	A6	Remove 8 x 16 addition on rear of dwelling. Build new 24 x 24 single story addition w/ 8 x 24 covered porch	7/9/2021	\$40.00	
1227	Altrman Tim	147 Crockett Dr	120-020-000-001-00	R-1	Remove existing 20' x 39' lean-to on rear of structure. Add new 36' x 65' addition on rear of existing accessory building. Addition was P/C approved in 2020	7/19/2021	\$40.00	
1228	Young Kelly	959 Ray Quincey Rd	120-027-300-001-00	R-2	8' x 20' covered porch addition to existing shed	7/23/2021	\$40.00	
1229	Bredemeyer	216 Bickford Dr	120-010-000-017-00	R-1	Demolish existing mobile homes (2). Build new 26' x 44' modular home on crawl w/ 12' x 20' covered porch	7/27/2021	\$40.00	
1126								
				-Permits out of sequence				
				Planning Commission Hearings				
				Total			\$200.00	
Aug 24th	Eveline Trust Land Splits	953 & 957 Lakesport Rd	120-004-700-010-00	Ag	Requesting 2 splits of 1 acre & 1.29 acres each from a 68 acre Ag parcel. Currently the Ag parcel has 2 dwellings on one parcel; the split proposal will establish the dwellings on their own parcels.		\$120.00	
Aug 24th	Brook Brothers/Terrri Tom	141 Crockett Dr	120-005-300-005-13	C-1	Special Use Hearing - Site plan approval for a marina. P/C approved zoning change to C-1 on 5/25/2021.		\$120.00	
				Land Splits Processed			Total	\$240.00
				None				
				ZBA Hearings None Scheduled				
				Zoning Complaints None Reported				
				Zoning Violations Issued				

* Zoning Permits are submitted to the Branch County Building Dept. Once a Month.



Memorandum

TO: Algansee Township Board

FROM: Christopher Khorey, AICP

SUBJECT: **Solar Energy Ordinance**

DATE: July 28, 2021

On the following pages, please find the solar energy ordinance as recommended by the Planning Commission on July 27. The regulations would be placed in a new Section 14.13.

Accessory Solar Energy (i.e. solar panels designed to power primarily one home, farm, or business) would be permitted by right in the following districts:

- AG
- C-1
- I-1
- R-1 (rooftop only)
- R-2 (rooftop only)
- R-3 (rooftop only)

And by Special Use in the following districts:

- R-1 (freestanding, lots over two acres only)
- R-2 (freestanding, lots over two acres only)
- R-3 (freestanding)

Solar Farms (i.e. solar panels designed to produce energy for the electrical grid) would be permitted by Special Use in the following districts, and prohibited in all other districts.

- AG
- C-1
- I-1

Solar energy would not be permitted in the Restricted Development Overlay or the Environmental Preservation Overlay.

The Ordinance also includes setbacks, lot coverage limits, and operational standards as well as a performance bond requirement for commissioning.

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ALGANSEE TOWNSHIP, BRANCH COUNTY, MICHIGAN

ORDINANCE NO. _____

AN ORDINANCE TO REGULATE SOLAR ENERGY FACILITIES.

ALGANSEE TOWNSHIP ORDAINS:

SECTION I. Ordinance Amendment.

Pursuant to this Ordinance, the Zoning Ordinance of the Algansee Township shall be amended as follows:

A new Section 4.02.J shall be created, including the following text:

J. Accessory solar energy systems capable of producing a maximum of 5,000 kWh per month, subject to the standards in Section 14.13.

A new Section 4.03.P shall be created, including the following text:

P. Solar Farms, subject to the standards in Section 14.13.

A new Section 5.02.H shall be created, including the following text:

H. Accessory solar energy systems located on the roof of a previously existing building, and capable of producing a maximum of 5,000 kWh per month, subject to the standards in Section 14.13.

A new Section 5.03.D shall be created, including the following text:

D. Freestanding accessory solar energy systems that meet the following requirements:

1. Capable of producing no more than 5,000 kWh per month
2. Located on a lot of at least two acres in area
3. Meet the standards in Section 14.13.

A new Section 6.02.J shall be created, including the following text:

J. Accessory solar energy systems located on the roof of a previously existing building, and capable of producing a maximum of 5,000 kWh per month, subject to the standards in Section 14.13.

A new Section 6.03.I shall be created, including the following text:

I. Freestanding accessory solar energy systems that meet the following requirements:

1. Capable of producing no more than 5,000 kWh per month
2. Located on a lot of at least two acres in area
3. Meet the standards in Section 14.13.

A new Section 7.02.I shall be created, including the following text:

I. Accessory solar energy systems located on the roof of a previously existing building, and capable of producing a maximum of 5,000 kWh per month, subject to the standards in Section 14.13.

A new Section 7.03.H shall be created, including the following text:

H. Freestanding accessory solar energy systems that meet the following requirements:

1. Capable of producing no more than 5,000 kWh per month
2. Meet the standards in Section 14.13.

A new Section 8.02.C shall be created, including the following text:

C. Accessory solar energy systems (rooftop or freestanding) capable of producing a maximum of 5,000 kWh per month, subject to the standards in Section 14.13.

A new Section 8.03.F shall be created, including the following text:

F. Solar Farms, subject to the standards in Section 14.13.

A new Section 9.02.C shall be created, including the following text:

C. Accessory solar energy systems capable of producing a maximum of 5,000 kWh per month, subject to the standards in Section 14.13.

A new Section 9.03.G shall be created, including the following text:

G. Solar Farms, subject to the standards in Section 14.13.

A new Section 14.13 shall be created, including the following text:

- A. Accessory solar energy systems capable of producing a maximum of 5,000 kWh per month shall be subject to the following regulations:

1. Solar energy systems shall be designed and located to avoid glare or reflection onto adjacent lots and adjacent roadways, and shall not interfere with traffic or create a safety hazard off-site.
 2. A building permit shall be required for any solar energy system.
 3. All solar energy system owners shall submit a map noting the location of the solar energy system and the panel disconnect to Branch County.
 4. The owner of the solar energy system shall provide written documentation that the public utility company has been informed of the customer's intent to install an interconnected customer-owned generator, and approves of such connection. Off-grid systems shall be exempt from this requirement.
 5. No homeowners' agreement, covenant, common interest community, or other contract between multiple lot owners within a subdivision shall restrict or limit solar energy systems.
 6. All freestanding solar panels must be set back at least 20 feet from all lot lines.
- B. Solar farms (principal or accessory solar energy systems capable of producing at least 5,000 kWh per month) shall be subject to the following regulations, in addition to the general standards for special uses:
1. No solar farm shall be erected on any lot less than five acres in area.
 2. **Setbacks.** Setback shall be as follows:
 - i. The minimum setback requirement shall be five (5) feet from a lot line abutting any parcel where the landowner has a lease or other agreement with the solar energy company that would allow solar panels on the land, or that would designate the land as "participating" in the solar farm.
 - ii. The minimum setback requirement shall be two-hundred-fifty (250) feet from a lot line abutting any parcel where the landowner does not have a lease or other agreement with the solar energy company that would allow solar panels on the land, or that would designate the land as "participating" in the solar farm.
 - iii. The minimum setback requirement shall be fifty (50) feet from a public road right-of-way.
 3. A clearly visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations.
 4. All mechanical equipment including any structure for batteries or storage cells, shall be completely enclosed by a six foot high fence with a self-locking gate, and provided with evergreen landscaping that is sufficient to buffer the equipment from view of adjacent streets and lots.
 5. All power transmission lines and other utility wires within the project boundary shall be located underground to the maximum extent possible.

6. There shall be maintained a current general liability policy covering bodily injury and property damage with limits of at least \$1 million per occurrence and \$1 million in the aggregate.
7. If the land on which the solar farm is proposed is to be leased, rather than owned, by the solar farm operator, all lots within the solar farm project boundary shall be included in a recorded easement, lease, or consent agreement specifying the applicable uses for the duration of the project. All necessary leases, easements, or other agreements between the solar farm operator and the affected parties shall be in place prior to commencing construction, unless specified otherwise by the special use permit conditions.

C. The following shall apply to all solar energy facilities, regardless of the maximum kWh capacity:

1. Rooftop and building mounted solar energy systems are subject to the following regulations:
 - i. Roof mounted systems shall not extend more than 4 feet above the surface to which it is affixed. Roof mounted systems that do not extend more than 3 inches above the surface of the roof shall be accessory solar energy systems, regardless of the kWh capacity.
 - ii. No solar energy system may protrude beyond the edge of the roof.
2. Rooftop and building mounted solar energy systems are subject to the following regulations:
 - i. Roof mounted systems shall not extend more than 4 feet above the surface to which it is affixed.
 - ii. No solar energy system may protrude beyond the edge of the roof.
3. Ground mounted and freestanding solar energy systems are subject to the following regulations:
 - i. All solar energy systems shall have a defensible space for fire protection, as required by the fire department with jurisdiction over the site.
 - ii. **Height.**
 1. The height of the solar energy system and any mounts shall not exceed 15 feet at full tilt.
 2. If the solar energy system is an accessory use is located in the front yard between the required front setback line and front building wall of the principal building, the maximum height for the system shall be 42 inches (3 feet, 6 inches). Evergreen landscaping that is sufficient to completely block the equipment from view from dwelling units or public right-of-way located within a quarter-mile but that will not obstruct the energy collecting surface from solar energy shall be provided.
 - iii. **Area.** No more than 20% of the total lot area may be covered by an accessory ground mounted solar energy system, and no more than 50% of the total lot area may be covered by solar energy system components of a solar farm.

- iv. **Batteries.** When batteries are included as part of the solar collector system, they must be placed in a secure container or enclosure when in use, and when no longer used shall be disposed of in accordance with applicable laws and regulations.
- v. **Abandonment.** Abandoned or unused solar panels and associated facilities shall be removed within 12 months of the cessation of operations at the site unless a time extension is approved by the Planning Commission. All decommissioned materials from the solar farm must be removed from Algansee Township.
- vi. **Performance Bond.** The Planning Commission shall require a performance bond to guarantee all aspects of the solar energy facility are removed if the solar farm is decommissioned. To determine the amount of the performance bond, the applicant shall provide three estimates, from outside contractors, for the removal of the solar panels, and the performance bond shall be equal to the highest estimate. Every three years, the solar farm owner shall submit three new estimates to the Township, and the bond shall reflect the highest of the newly submitted estimates.
- vii. A copy of the relevant documents (including the signed lease, deed, license, or land contract) which allows the installation and which requires the applicant to remove the panels and associated facilities upon cessation of operations shall be submitted at the time of application. In the event that any panels or facilities are not removed within the twelve (12) months of the cessation of operations at a site, the panels and facilities shall be removed by the Township and the costs of removal assessed against the real property.

SECTION 2. Conflicts. If any provision of the Zoning Ordinance conflicts with this amendment to the Zoning Ordinance, the most restrictive provision shall apply.

SECTION 3. Severability. This Ordinance and the various parts, sentences, paragraphs, sections, and clauses thereof are hereby declared to be severable. Should any part, sentence, paragraph, section, or clause be declared unconstitutional, null, or void by a court of competent jurisdiction, such declaration shall not have any effect on the validity of the remaining parts, sentences, paragraphs, sections, and clauses of this Ordinance.

SECTION 4. Effective Date: This Ordinance shall be effective upon publication in a newspaper of general circulation within the Township.

This Ordinance is hereby declared to have been adopted by the Township Board of the Algansee Township, County of Branch, State of Michigan, at a Regular Meeting, called and held on the _____ day of _____, 2021.

YEAS:

NEAS:

ABSENT:

I hereby approve the foregoing Ordinance.

Ann Gary
Clerk

Russ Jennings
Supervisor

Adopted:

Published:

Effective:



Memorandum

TO: Alganssee Township Planning Commission
FROM: Chris topher Khorey , AICP
SUBJECT: **Draft Updated Wind Energy Ordinance**
DATE: July 1 , 2021

On the following pages, please find an updated draft of the Township’s Wind Energy Ordinance. Since the Planning Commission’s discussion in June, the following aspects have been revised:

- The required setback from bodies of water has been increased from 1,000 feet to 2,500 feet.
- A new 2,500 foot setback requirement from the R1 and R-2 districts has been added.
- The period of time for implementation of a mitigation plan under the complaint resolution system has been shortened from 60 days to 30 days.

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ALGANSEE TOWNSHIP, BRANCH COUNTY, MICHIGAN

ORDINANCE NO. _____

AN ORDINANCE TO UPDATE THE ZONING REGULATIONS FOR WIND ENERGY FACILITIES.

ALGANSEE TOWNSHIP ORDAINS:

SECTION I. Ordinance Amendment.

Pursuant to this Ordinance, the Zoning Ordinance of the Algansee Township shall be amended as follows:

A new Section 4.03.Q shall be created, including the following text:

Q. Wind energy conversion systems subject to the standards in Section 14.12.

A new Section 8.03.G shall be created, including the following text:

G. On-site wind energy conversion systems subject to the standards in Section 14.12.

A new Section 9.03.G shall be created, including the following text:

H. On-site wind energy conversion systems subject to the standards in Section 14.12.

Section 14.12 shall be removed and replaced by the following text:

- A. **Purpose.** The regulation of Wind Energy Conversion Systems (WECS), including the height, minimum lot area, and required setbacks for such systems, is intended to provide for an alternative source of power generation while protecting the health, safety, and welfare of Township residents. The system, its construction, and its operation shall comply with all applicable local, state, and federal regulations.
- B. **Definition.** WECS: A system which converts wind energy into electricity through the use of a wind turbine generator and includes the turbine, blades, and tower as well as related equipment.
1. **Ambient:** The decibel measurement (dB(A) or dB(C)) of background sound pressure level exceeded 90% of the time at a given location prior to the installation of the WECS (also known as L_{90}).
 2. **dB(A):** The sound pressure level in decibels. It refers to the "a" weighted scale defined by ANSI S1.32 (1997 or most recent) for sound frequencies below the 1,000 HZ octave band.
 3. **dB(C):** The sound pressure level in decibels. It refers to the "c" weighted scale defined by ANSI S1.32

(1997 or more recent) for acoustic energy from the 20HZ octave band and higher.

4. **Decibel:** The unit of measure used to express the magnitude of sound pressure and sound intensity.
5. **FAA:** The Federal Aviation Administration
6. **IEC:** The International Electrotechnical Commission
7. **ISO:** The International Organization for Standardization
8. **Large Turbine/ Utility-Scale Wind Energy Conversion System:** A wind energy conversion system intended to generate power from wind primarily to supplement the greater electric utility grid. Utility-Scale WECS include accessory uses such as, but not limited to, SCADA towers, anemometers, or electric substations.
9. **LMax (LAMax or LCMax):** The maximum dB(A) or DB(C) sound level measured using the “fast response” setting of the sound meter (equivalent to 0.125 second exponential averaging time).
10. **Lease Unit Boundary:** The boundary around a property(ies) leased or purchased for purposes of operating a wind energy facility, including leased or purchased adjacent parcels to the parcel on which the wind energy facility tower or equipment is located. For purposes of setback, the Lease Unit Boundary shall not cross road rights-of-way.
11. **Met Tower.** A freestanding tower containing instrumentation such as anemometers that is designed to provide present moment wind data for use by the supervisory control and data acquisition (SCADA) system which is an accessory land use to a Utility Grid Wind Energy Conversion System.
12. **Participating and Non-Participating Parcels:**
 - a. Participating Parcel shall mean a parcel of record that is to be used, occupied, maintained, let, leased or authorized to be used for any purposes of developing or operating a WECS, including construction of improvements, providing access to improvements, providing space for collection or distribution lines, or to meet requirements and regulations set forth herein.
 - b. Non-Participating Parcel shall mean a parcel of record that is not a Participating Parcel.
13. **Shadow Flicker:** Alternating changes in light intensity caused by the moving blade of a Wind Energy Conversion System casting shadows on the ground and stationary objects, such as but not limited to a window of a dwelling.
14. **Small Turbine/On-Site Wind Energy Conversion System:** A wind energy conversion system more than 40 feet in height intended to generate electric power from wind solely for the use of the site on which the system is located. WECS primarily intended to provide on-site power, but contribute surplus energy to the grid, may also be considered On-Site WECS.
15. **Wind Energy Conversion System (WECS):** Shall mean a combination of:
 - a. A surface area (typically a blade, rotor, or similar device), either variable or fixed, for utilizing the wind for electrical powers; and

- b. A shaft, gearing, belt, or coupling utilized to convert the rotation of the surface area into a form suitable for driving a generator, alternator, or other electricity-producing device; and
- c. The generator, alternator, or other device to convert the mechanical energy of the surface area into electrical energy; and
- d. The tower, pylon, or other structure upon which any, all or some combination of the above are mounted.
- e. Other components not listed above but associated with the normal construction, operation, and maintenance of a WECS such as substations, anemometer towers (MET), cables and wires and other buildings accessory to such facility.

16. **Wind Energy Facility:** Clusters of two or more Utility Grid Wind Energy Conversion Systems, placed upon a lot or parcel with the intent to sell or provide electricity to a site or location other than the premises upon which the Wind Energy Conversion Systems are located. Said Wind Energy Conversion Systems may or may not be owned by the owner of the property upon which they are placed.

C. **Special use permit.** Due to the concerns related to health, safety, and welfare and the increased potential for impacts on adjacent properties, both the WECS and the Met tower shall be permitted upon approval of a Special Use Permit, provided the land area is sufficient to support their development and operation (see subsection D.2 below). The following requirements shall be met and the Planning Commission may impose additional conditions where appropriate:

- 1. In addition to the requirements for Special Use Permits (Article 18) and Site Plan Review (Article 17), the application for the WECS and/or a Met tower shall include the following additional information:
 - a. the location of overhead electrical transmission or distribution lines, whether utilized or not
 - b. the location of the WECS with its specific dimensions, including the entire area through which the rotor(s) may rotate and/or the location of the Met tower with its specific dimensions
 - c. the location of any guy wires, other support devices, or accessory structures or facilities
 - d. the location of all structures and land uses (including dwelling units) within 500 feet of the WECS and/or Met tower
 - e. proof of the applicant's public liability insurance for the project
 - f. the name, address, and telephone number of the owner(s) of the proposed system
 - g. manufacturer's name and address
 - h. survival wind speed in miles per hour and meters per second for the tower and the maximum power output for the generator

- i. name, address, and telephone number of the installer
 - j. name, address, and telephone number of the person responsible for maintenance
 - k. the height of the WECS and/or Met tower, as described in paragraph D.1 below
 - l. the setbacks from the wind turbine and/or Met tower and any accessory components (structure, guy wires, etc.) to the adjacent property lines
2. **Electromagnetic Interference:** The entire WECS (including turbines, alternators, generators, and interconnect systems) and/or Met tower shall be located, designed, and filtered and/or shielded to prevent the emission of generated radio frequency energy which would cause any interference with radio, television broadcasting, wireless telephone, and/or personal communication transmission or reception, and shall comply with all applicable state and federal rules and regulations.
3. **Noise:** The maximum level of noise permitted to be generated by any WECS and/or Met tower shall be 55 decibels, as measured on the db(A) scale, measured at the property line nearest the WECS or Met tower.
- a. **Third Party Report (Utility Grids WECS ONLY)** For Utility Grid WECS, a copy of a noise modeling and analysis report completed by a third-party acoustician acceptable to the Township shall show locations of equipment identified as a source of noise which is placed, based on the analysis, so that the Utility Grid WECS shall not exceed the maximum permitted noise levels. The noise modeling and analysis shall conform to the most current protocol for The International Electrotechnical Commission (IEC) 61400, Parts 11 and 14, The International Organization for Standardization (ISO) 9613-2, and ANSI S12.62, including all tolerances and uncertainties. After installation of the WECS, noise level measurements shall be performed by a third party, acoustician acceptable to the Township according to the procedures in the most current version of The American National Standards Institute (ANSI) S12.9, Part 3 and ANSI S12.100 for measurements (with an observer). All sound pressure levels shall be measured with a sound meter that meets or exceeds the most current version of ANSI S1.4 specifications for a Type II sound meter. Documentation of the actual noise level measurements shall be provided directly to Alganssee Township (not via the applicant, owner, or operator) within 60 days of the commercial operation of the project and as requested to respond to a noise complaint from a resident. The Township may revoke the special use permit for a particular property and cause the removal of the offending wind turbine due to repeated and verified lack of compliance with noise regulations.
4. **Visual Impact:** Both wind turbines and Met towers shall use tubular towers and shall be finished in a single, non-reflective, matte-finished color. A Met tower shall also be permitted to be of a lattice-type design. Multiple towers involved in a "large turbine/utility grid" WECS shall be constructed of similar design, size, operation, and appearance throughout the project. No lettering, company insignia, advertising, or graphics shall be on any part of the tower, hub, or blades. Accessory structures may have lettering that exhibits the manufacturer's and/or owner's identification.

- 1. **Height:** The height of the wind turbine shall be measured from the existing grade at the base of the

turbine to the top of the blade or rotor at its tallest point. The height of the Met tower shall be measured from the existing grade at the base of the tower to the top of the unit at its tallest point.

- a. The maximum allowable height for any "small turbine/on-site" WECS, based upon the combined tower and rotor blade length, shall be 40 feet for site parcels of one to less than two acres, 80 feet for site parcels of two to less than three acres and up to 120 feet for site parcels of three acres or more.
- b. The maximum allowable height for any "large turbine/utility grid" WECS, based upon the combined tower and rotor blade length, shall be 410 feet. The Planning Commission, in consideration of a request, may approve an increase to this height requirement where the following requirements are met:
 - i. The increased height will result in the preservation of a substantial stand of trees, existing land forms, or structures that would otherwise be required to be removed to satisfy anticipated and required wind velocity.
 - ii. The increased height is the minimum necessary to achieve a reasonable rate of return on the operation of the wind turbine generator given the documented wind speeds and other site conditions. A reasonable rate of return is not equivalent to maximizing economic return. The Planning Commission shall not grant the increased height if the lack of economic return is due to the use of inefficient equipment that does not utilize current commercial technologies or would be aesthetically injurious to the area.
 - iii. The increased height will not result in increased intensity of lighting on the tower due to Federal Aviation Administration (FAA) requirements.
- c. A WECS located in proximity to an airport may be subject to additional height limitations as provided in the airport's layout or approach plan.
- d. The maximum allowable height for a Met tower and applicable height requirements shall be the same as for a WECS as indicated in the paragraphs above depending on the size of the parcel and the intended type of WECS.

2. **Zoning District:**

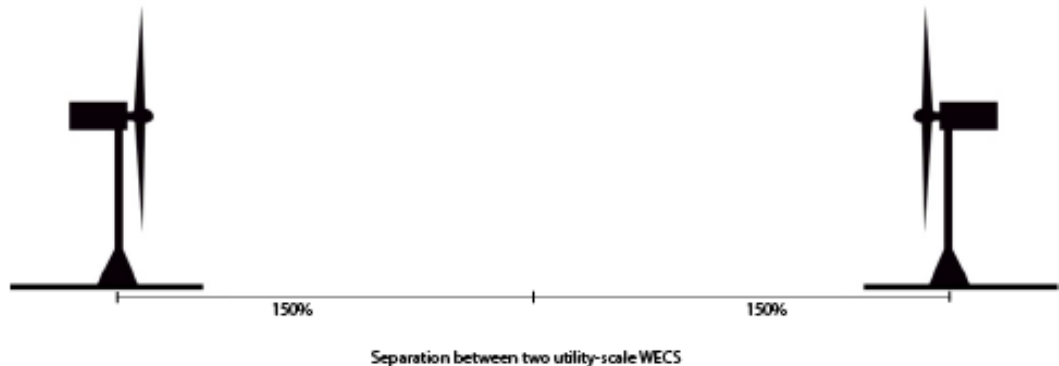
- b. A "small turbine / on-site" WECS or associated Met tower shall be permitted in the AG, C1, or I-1 Districts upon approval of a Special Use Permit, provided it complies with the requirements of this section and the zoning district.
- c. A "large turbine / utility grid" WECS or associated Met tower shall be permitted with the AG District upon approval of a Special Use Permit provided it complies with the requirements of this section and the zoning district.

3. **Lot area/setbacks:**

- a. No "small turbine/on-site" WECS or associated Met tower shall be erected on any lot or parcel less than one acre in area and shall be situated on the lot or parcel so that no portion of the tower or turbine is closer to property lines (excluding public utilities) than

150 percent of the height of the tower or turbine as defined in subparagraph D.1 above.

- b. No "large turbine/utility grid" WECS or associated Met tower shall be erected on any parcel less than five acres in area and shall be situated on the parcel so that no portion of the tower or turbine is closer to property lines (excluding public utilities) than 150 percent of the height of any tower or turbine as defined in subparagraph D.1 above.
- c. On sites where multiple turbines or towers are proposed, sufficient land shall be available such that the minimum land area requirement may be satisfied on the site for each proposed unit.
- d. Guy wires or other elements of the support structure shall not extend closer than ten feet to the owner's property lines.
- e. Accessory structures or other accessory equipment used in the function of the WECS and/or Met tower shall satisfy the setback requirements of the subject zoning district.
- f. **Setback from Bodies of Water:** No "large turbine/utility grid" WECS or associated Met tower shall be erected within 2,500 feet of the Ordinary High Water Mark of a river or inland lake regulated by Michigan Department of Environmental Quality. Any "small turbine/on-site" WECS within 2,500 feet of the Ordinary High Water Mark of a river or inland lake regulated by Michigan Department of Environmental Quality shall be no more than 40 feet in height.
- g. **Setback from Residential Zoning Districts:** No "large turbine/utility grid" WECS or associated Met tower shall be erected within 2,500 feet of an R-1 or R-2 Zoning District.
- h. **Tower Separation.** Turbine/tower separation shall be no less than 150% the height of both towers including the top of the bladed in their vertical position.



- 4. **Ground Clearance:** For both horizontal and vertical axis turbines, the WECS rotor shall be located on the tower or support such that the minimum blade clearance above ground level is 20 feet.
- 5. **Safety.** The WECS shall meet the following safety requirements:
 - a. The WECS shall be designed to prevent unauthorized access to electrical and mechanical components and shall have access doors that are kept securely locked at all times when service personnel are not present.

- b. All spent lubricants and cooling fluids shall be properly and safely removed in a timely manner from the site of the WECS.
 - c. A sign shall be posted near the tower or operations and maintenance office building that shall contain emergency contact information. Signage placed at the road access shall be used to warn visitors about the potential danger of falling ice.
 - d. All collection system wiring shall comply with all applicable safety and stray voltage standards.
 - e. WECS towers shall not be climbable on the exterior.
 - f. Each WECS shall be equipped with both a manual and automatic braking device capable of stopping the WECS operation in high winds within 80% of design limits of the breaking system.
 - g. A copy of the un-redacted Safety Manual from the turbine manufacturer shall be submitted to the Township and the turbine must comply with all requirements therein.
 - h. A copy of the ongoing maintenance plan for the WECS shall be submitted to the Township and the WECS owner must execute the maintenance plan as written.
6. **Connection to power grid:** If the WECS is to be interconnected with the power grid of the local electric utility, the applicant shall provide proof of written notice to the utility of the proposed interconnection and the utility's response thereto. The owner shall comply with all requirements of the servicing utility if the WECS is interfaced with the utility grid. The utility will install appropriate electric metering (for sellback or non-sellback) and the owner will be required to install a disconnecting device adjacent to the electric meter(s). All transmission lines located on participating parcels shall be underground.
7. **Lighting:** The WECS and/or Met tower shall be lighted in compliance with the minimum requirements of the Federal Aviation Administration (FAA).
8. **Vibration:** Under no circumstances shall a WECS or Met tower produce vibrations humanly perceptible beyond lot boundaries.
9. **Shadow Flicker.**
- a. **Utility Grid WECS.** No amount of Shadow Flicker may fall on or in a NonParticipating Parcel. Site plan and other documents and drawings shall show mitigation measures to eliminate potential impacts from shadow flicker, as identified in the Shadow Flicker Impact Analysis. Measures to eliminate all effects of shadow flicker on all Non-Participating parcels beginning at the property lines, such as programming the WECS to stop rotating during times when shadow crosses occupied structures, shall be required. If the Shadow Flicker Impact Analysis shows

potential for shadow flicker to fall on any NonParticipating Parcel and the affected property owners wishes to waive his/her rights to the protections provided by this Ordinance, the property owner shall submit for records a signed and notarized letter of acknowledgement that verifies the owner's understanding that shadow flicker on his/her parcel may result from installation and waives the Township requirement for no shadow flicker on the Non-Participating Parcel. If the affected property owner wants this waiver to apply to future owners of the affected property, the signed and notarized letter of acknowledgment must be recorded with the Branch County Register of Deeds.

- b. **On Site WECS.** Provided that all setback requirements are met, On Site WECS shall not be subject to shadow flicker regulations.

10. **Additional studies:** The applicant may offer and submit, or the Planning Commission may require, that the applicant submit studies related to noise, vibration, environmental impacts, or similar issues that may be considered a nuisance. In addition, such studies may include avian and wildlife impact, visual impacts, or similar issues based upon compatibility of the proposed use in the requested location.

- E. **Annual Report.** All owners of utility grid WECS within the Township shall submit an annual report to the Zoning Administrator. The responsibility for the annual report shall lie with the owner of the WECS, not the owner of the land the WECS is located on, and the owner of the WECS shall be responsible for all costs associated with the annual report. The annual report must contain reports from a qualified third party detailing the condition of the WECS, any needed maintenance or safety improvements, and the actual performance of the WECS with regard to noise, shadow flicker, and electro-magnetic interference.

F. **Decommissioning.**

1. The Planning Commission shall require a performance bond to guarantee all aspects of the wind energy facility are removed if the wind turbines are decommissioned. To determine the amount of the performance bond, the applicant shall provide three estimates, from outside contractors, for the removal of all aspects of the wind energy system, and the performance bond shall be equal to the highest estimate. Every three years, the wind energy system owner shall submit three new estimates to the Township, and the bond shall reflect the highest of the newly submitted estimates.
2. All above and below ground materials shall be removed when the WECS is decommissioned. All decommissioned materials shall be removed from Algansee Township.
3. The ground shall be restored to its original condition within 60 days of removal of the structures. Acceptable ground covers include grasses, trees, crops, or other material demonstrated to be characteristic of the surrounding land.
4. In the event that the WECS owner or operator fails to comply with the decommissioning requirements of this Ordinance, the Township may, upon thirty (30) days written notice to the WECS owner and/or operator, utilize the security bond referenced in Section 17(i) to complete the decommissioning process.

- G. **Abandonment of unused turbines.** Abandoned or unused turbines and associated facilities shall be removed within 12 months of the cessation of operations at the site unless a time extension is approved by the

planning Commission. A copy of the relevant documents (including the signed lease, deed, license, or land contract) which allows the installation and which requires the applicant to remove the turbine and associated facilities upon cessation of operations shall be submitted at the time of application. In the event that a turbine is not removed within the 12 months of the cessation of operations at a site, the turbine and facilities shall be removed by the Township through the use of the decommissioning bond.

- H. **Complaint Resolution.** The purpose of this section is to provide the public with a mechanism to file a complaint with the Zoning Administrator regarding a WECS, and receive a timely response regarding alleged ordinance violations or violations of the Conditions of Approval.
1. Upon receiving a complaint of an alleged Ordinance or Conditions of Approval violation violation, the Zoning Administrator shall notify the owner and operator of the WECS, and, if they are separate entities, the owner of the lot in question.
 2. Upon notification by the Zoning Administrator, the WECS owner and operator (meaning the owner of the turbine and related equipment, not the land owner) shall have 60 days to investigate the complaint, and respond with either a mitigation plan or a statement requesting that the matter be reviewed by the Zoning Board of Appeals. If the WECS owner and operator believes that the WECS is not in violation, it shall request a review by the Zoning Board of Appeals.
 - i. If the WECS owner and operator does not respond within 60 days, the Zoning Administrator shall notice a public hearing at the Planning Commission for the purpose of discussing a revocation of the Special Land Use Permit. The Special Use owner and operator shall be notified of the hearing. If the Special Use owner and operator responds to the complaint prior to the hearing date, the hearing shall be cancelled.
 - ii. If the WECS owner and operator submits a mitigation plan, the Zoning Administrator shall review it and determine if it is satisfactory to mitigate the complaint.
 1. The Zoning Administrator may consult outside experts, the Township Attorney, or the Township Planner, in making a determination.
 2. If the mitigation plan is determined to be satisfactory, the WECS owner and operator must implement the mitigation within 30 days. The Zoning Administrator may extend the deadline upon determining that is not practical for the mitigation to be accomplished in 30 days due to circumstances beyond the applicant's control.
 3. If the WECS owner and operator fails to implement the mitigation plan, the Zoning Administrator shall notice a public hearing at the Planning Commission for the purpose of discussing a revocation of the Special Land Use Permit. The Special Use owner and operator shall be notified of the hearing. If the Special Use owner and operator implements the mitigation plan prior to the hearing date, the hearing shall be cancelled.

4. If the WECS owner and operator requests that the Zoning Board of Appeals review the matter, the Zoning Board of Appeals shall hold a public hearing, and shall hear evidence from both the complainant, and the WECS owner and operator. Following the public hearing, the Zoning Board of Appeals shall make one of the following determinations:
 - a. The WECS is in compliance with the Ordinance and all Conditions of Approval, and no further action is needed.
 - b. The WECS is out of compliance with either the Ordinance, or the Conditions of Approval, or both, and the Special Use owner and operator must submit a mitigation plan to the Zoning Administrator within 60 days. If no mitigation plan is submitted, the Zoning Administrator shall notice a public hearing of the Planning Commission for the purpose of revoking the Special Use Permit. If the Special Use permit is revoked, the abandonment process described in 14.12. shall begin.
2. In order to prevent repetitive and unmerited complaints and ensure that all complaints can be addressed efficiently, the following shall apply:
1. A complaint may only be lodged by the owner or leaseholder of a parcel of land within one mile of the WECS that the complaint alleges is out of compliance with this Ordinance or its Conditions of Approval.
 2. No more than one complaint may be lodged per year per parcel of land. A complaint may allege more than one violation of the Ordinance or Conditions of Approval. An owner of multiple parcels of land may lodge complaints for each parcel of land they own during a given year.
 3. If, following a complaint, a WECS has been determined to be in compliance by the Zoning Administrator or Zoning Board of Appeals, no complaint shall be lodged alleging the same violation of the Ordinance or Condition of Approval for one year.
 4. Following the implementation of a mitigation plan, no complaint shall be lodged alleging that the mitigation plan has not successfully corrected the violation until at least 90 days have passed after the implementation of the plan.

SECTION 2. Conflicts. If any provision of the Zoning Ordinance conflicts with this amendment to the Zoning Ordinance, the most restrictive provision shall apply.

SECTION 3. Severability. This Ordinance and the various parts, sentences, paragraphs, sections, and clauses thereof are hereby declared to be severable. Should any part, sentence, paragraph, section, or clause be declared unconstitutional, null, or void by a court of competent jurisdiction, such declaration shall not have any effect on the

validity of the remaining parts, sentences, paragraphs, sections, and clauses of this Ordinance.

SECTION 4. Effective Date: This Ordinance shall be effective upon publication in a newspaper of general circulation within the Township.

This Ordinance is hereby declared to have been adopted by the Township Board of the Algansee Township, County of Branch, State of Michigan, at a Regular Meeting, called and held on the _____ day of _____, 2021.

YEAS:

NEAS:

ABSENT:

I hereby approve the foregoing Ordinance.

Clerk

Ann Gary

Russ Jennings
Supervisor

Adopted:

Published:

Effective: