



Cooper Charter Township

1590 West D Avenue
Kalamazoo, MI 49009-6321
(269) 382-0223

STAFF MEMO

Meeting Date: January 13, 2025

To: Township Board

From: Julie Johnston, AICP
Planner/Zoning Administrator

Regarding: Sustainable Energy Zoning Ordinance Amendments – Introduction (First Reading)

As previously discussed with the Board, Public Act 233 of 2023 provides specific requirements for utility-scale renewable energy systems. To comply with these requirements and to strengthen the existing wind and solar ordinances, the Planning Commission worked with the Township Planner and Attorney to create the attached amendments.

As a reminder, the Public Act outlines the following:

- Grants Michigan Public Service Commission authority to issue certificates for renewable projects at designated thresholds (utility size).
- Gives energy developers the option to go directly to the Michigan Public Service Commission (MPSC) to construct utility-scale renewable energy facility if the locality does not have a Compatible Renewable Energy Ordinance (CREO).
- Applies to wind (100 MW or more), solar (50MW or more), and energy storage (50 MW and a discharge capability of 200 MW) facilities.
- Adopting a compatible ordinance is the only method to “guarantee” that developers must first go through the local review process.
- Grants each local affected unit of government funds for the local intervenor compensation fund (75k).
- Took effect on November 29, 2024.

Public Act 233 of 2023 has made some significant changes to the permitting process for large-scale wind, solar, and energy storage projects. The new law grants permit authority to the Michigan Public Service Commission (MPSC) unless local governments adopt "Compatible Renewable Energy Ordinances."

Township Board
Zoning Ordinance Amendments
Sustainable Energy

Essentially, this Act can remove local control from the permitting process. It also prohibits local governments from placing moratoriums on the development of utility scale renewable energy projects.

The Township has an existing wind and solar energy ordinance. The recommended changes to these ordinances include updates to the definitions for these two systems, as well as improvements to the decommission and emergency response plans. Finally, the specific requirements of Public Act 233 are included in the proposed amendments. The Township does not have a battery storage ordinance, so a newly created ordinance is included with the proposed Zoning Ordinance changes.

If the Township Board approves the attached resolutions and ordinances for first reading, they will be placed on your February agenda for adoption.

Included with this staff report are all three resolutions, ordinances, and public notices. In addition, redlined versions of the wind and solar ordinances are included in this Introduction packet to assist the Board with their review of the requested amendments.

Attachments: Resolution 25-288, 25-289, and 25-290
Ordinance 274, 275, 276
Public Notice
Wind Energy Ordinance – redlined
Solar Energy Ordinance – redlined

**CHARTER TOWNSHIP OF COOPER
RESOLUTION NO. 25-288**

**RESOLUTION INTRODUCING ORDINANCE NO. 274, AN ORDINANCE TO INTRODUCE AMENDMENTS TO
THE TOWNSHIP ZONING ORDINANCE**

A resolution made and adopted at a meeting of the Township Board of the Charter Township of Cooper, Kalamazoo County, State of Michigan, held on January 13, 2025, at 7:00 P.M.

PRESENT: _____

ABSENT: _____

The following Resolution was offered by _____ and seconded by _____.

WHEREAS, pursuant to the Michigan Zoning Enabling Act, Act 110 of 2006, MCL 125.3101 *et seq.* ("MZEA"), the Charter Township of Cooper ("Township") has authority to adopt and amend zoning ordinances regulating the use of land in the Township; and

WHEREAS, the Township desires to consider amending its Zoning Ordinance, specifically Section 120.460: Wind Energy Conversion Systems, to ensure the ordinance meets the new requirements of Public Act 233, which provides permitting requirements for utility-scale wind energy systems; and

WHEREAS, the Township would like to amend the Ordinance with these new requirements, as well as adding regulations for a decommission / site reclamation plan and an emergency response plan for utility-scale wind energy systems; and

WHEREAS, upon giving notice in accordance with the MZEA, the Township Planning Commission ("Planning Commission") held a public hearing regarding the proposed zoning ordinance amendments on December 18, 2024; and

WHEREAS, following the public hearing, the Planning Commission recommended that the proposed zoning ordinance amendments be approved by the Township Board.

NOW, THEREFORE, the Township Board of the Charter Township of Cooper resolves as follows:

1. The Township hereby introduces Ordinance No. 274, An Ordinance to Adopt Amendments to the Township Zoning Ordinance (the "Ordinance," attached as Exhibit A).

2. The Township Board will consider adopting the Ordinance at its next regular meeting on February 10, 2025, at 7:00 p.m.

3. Pursuant to Section 20 of the Michigan Charter Township Act, Act 82 of 1994, MCL 42.1 *et seq.* (the "Act"), the Clerk is directed to publish the Ordinance in accordance with Section 8 of the Act by posting it in the office of the Clerk and on the Township's website. The Clerk is further directed to publish notice of the posting in a form substantially conforming to Exhibit B in a newspaper of general circulation within seven (7) days after the posting. The notice shall describe the purpose of the Ordinance and state that it is posted in the office of the Clerk and on the Township's website.

4. A copy of the Ordinance shall be available for examination at the office of the Clerk, and copies may be provided for a reasonable charge.

5. Any and all resolutions that are in conflict with this Resolution are hereby repealed to the extent necessary to give this Resolution full force and effect.

YEAS: _____

NAYS: _____

STATE OF MICHIGAN)
 :
COUNTY OF KALAMAZOO)

I, the undersigned, the duly qualified and acting Clerk of the Charter Township of Cooper, Kalamazoo County, Michigan, DO HEREBY CERTIFY that the foregoing is a true and complete copy of certain proceedings taken by the Township Board at a regular meeting held pursuant to the Open Meetings Act on the 13th day of January, 2025.

DeAnna Janssen
Clerk, Cooper Charter Township

**CHARTER TOWNSHIP OF COOPER
COUNTY OF KALAMAZOO
ORDINANCE NO. 274
AN ORDINANCE TO AMEND THE ZONING ORDINANCE TO REGULATE WIND ENERGY CONVERSIONS
SYSTEMS**

The Charter Township of Cooper ordains amendments to Section 120.460: Wind Energy Conversion Systems of the Zoning Ordinance:

Section 1. Amendment to Section 120.14: Definitions.

The following definitions are removed from Subsection 120.460.B and amended and added to Section 120.14: Definitions:

1. Wind Energy Conversion System ("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.
2. Small Turbine/On-site System ("Small Turbine WECS"): A system intended to supply or supplement the energy needs of a single private property owner, with a single tower that may or may not be connected to the utility grid.
3. Large Turbine/Utility Grid System ("Large Turbine WECS") is designed to generate electricity from one or more towers (within an array) and is intended for sale or use in location through the electrical grid or export to the wholesale market. Large Turbine WECS includes, but is not limited to, the following equipment and facilities to be constructed by an electric provider or independent power producer: wind towers; wind turbines; access roads; distribution, collection, and feeder lines; wires and cables; conduit; footings; foundations; towers; poles; crossarms; guy lines and anchors; substations; interconnection or switching facilities; circuit breakers and transformers; energy storage systems; overhead and underground control; communications and radio relay systems and telecommunications equipment; monitoring and recording equipment and facilities; erosion control facilities; utility lines and installations; generation tie lines; ancillary buildings; wind monitoring stations; and accessory equipment and structures.

Section 2. Amendment to Section 120.460.B: Use Approval.

Subsection 120.460.B is modified from Definitions to Use Approval and is amended as follows:

1. Small Turbine WECS

Due to the concerns related to health, safety and welfare, Small Turbine WECS shall be regulated as special exception uses within the "A" Agricultural District, the "R-1", "R-2", "R-3", "R-4", "R-5", "R-6" residential zoning districts, and the "RD" Recreation District. Small Turbine WECS shall be regulated as a permitted use subject to conditions within the "C-1", "C-2", and "C-3" commercial districts and the "I-1", "I-2" and "I-3" industrial districts, provided such land area is sufficient to support their development and operation. Roof-mounted WECS that do not exceed the height regulation within the underlying zoning district shall also be considered a permitted use, provided such location does not exceed the noise requirements at the adjoining property line.

2. Large Turbine WECS

Due to the commercial nature of Large Turbine WECS, they shall be regulated as a special exception use in the "A" Agricultural District, "R-1" Rural Residential District, and as a permitted use subject to conditions in the "I-1", "I-2", and "I-3" Industrial Districts.

Section 3. Amendment to Section 120.460.D: Decommission Plan / Site Reclamation Plan.

Subsection 120.460.D is amended to remove the following:

The applicant shall submit a plan that indicates the designed life of the system, the estimated cost and method to ensure proper installation and removal, and the manner in which the site will be reclaimed. The Township may impose a bond or request similar surety that such system will be removed or replaced after this useful design life.

Subsection 120.460.D is amended to add the following:

1. To ensure proper removal of a WECS upon discontinued use or abandonment, applications shall include a decommissioning plan that ensures the return of all participating properties to a useful condition for uses within the I-2 or I-3 Industrial District and to the satisfaction of the Zoning Administrator, including removal of above-surface facilities and infrastructure that have no ongoing purpose. The decommissioning plan shall include, but is not limited to, financial assurance in the form of a bond, a parent company financial guarantee, or an irrevocable letter of credit. The financial security guarantee for the removal of the system must be posted with the Township within fifteen (15) days after special exception use approval or before a construction permit is issued for the facility. The amount of such a guarantee shall be no less than the estimated cost of removal and may include a provision for inflationary cost adjustments. The estimate shall be prepared by a third party with expertise in decommissioning such sites, hired by the applicant and shall be subject to approval by the Township.
2. If the owner of the facility or the property owner fails to remove or repair the defective or abandoned WECS, the Township, in addition to any other remedy under this Ordinance, may pursue legal action to abate the violation by seeking to remove the WECS and recover any and all costs, including attorney fees.

Section 4. Amendment to Section 120.460.E: Emergency Response Plan.

A new Subsection 120.460.E is to add the following:

The Large Turbine WECS shall submit an emergency response plan (ERP), which shall at a minimum include:

1. Evidence of consultation or a good faith effort to consult with local first responders and county emergency managers to ensure that the ERP is aligned with acceptable operating procedures, capabilities, resources, etc.

2. An identification of contingencies that would constitute a safety or security emergency, including fire emergencies response plan.
3. A description of all on-site equipment and systems to be provided to prevent or handle emergencies, including fire emergencies.
4. Emergency response measures for each contingency.
5. Evacuation control measures for each contingency.
6. Community notification procedures for each contingency.
7. An identification of potential approach and departure routes to and from the facility site for police, fire, ambulance, and other emergency vehicles.
8. A commitment to review and update the ERP with fire departments, first responders, and county emergency managers at least once every three (3) years.
9. An analysis of whether plans to be implemented in response to an emergency can be fulfilled by existing local emergency response capacity, and identification of any specific equipment or training deficiencies in local emergency response capacity.
10. Any other information relevant to an emergency response to the Commercial WECS.

Section 5. Amendment to Section 120.460.F: WECS Und PA 233.

A new Subsection 120.460.F is to add the following:

On or after November 29, 2024, once PA 233 of 2023 is in effect, then the following provisions apply to any WECS with a nameplate capacity of 100 megawatts or more. To the extent these provisions conflict with the provisions in subsections 120.460(A)-(E), these provisions control as to a WECS with a nameplate capacity of 100 megawatts or more. All provisions in subsections 120.460(A)-(E) that do not conflict with this subsection (F) remain in full force and effect. This subsection (F) does not apply if PA 233 of 2023 is repealed, enjoined, or otherwise not in effect and does not apply to a WECS with a nameplate capacity of less than 100 megawatts.

1. Setbacks. WECS must comply with the following minimum setback requirements, with setback distances measured from the center of the base of the wind tower:

Setback Description	Setback Distance
Occupied community buildings and dwellings on nonparticipating properties	2.1 times the maximum blade tip height to the nearest point on the outside wall of the structure
Residences and other structures on participating properties	1.1 times the maximum blade tip height to the nearest point on the outside wall of the structure
Nonparticipating property lines	1.1 times the maximum blade tip height

Setback Description	Setback Distance
Public road right-of-way	1.1 times the maximum blade tip height to the center line of the public road right-of-way
Overhead communication and electric transmission, not including utility service lines to individual houses or outbuildings	1.1 times the maximum blade tip height to the center line of the easement containing the overhead line

2. Shadow Flicker. Each wind tower must be sited such that any occupied community building or nonparticipating residence will not experience more than 30 hours per year of shadow flicker under planned operating conditions as indicated by industry-standard computer modeling.
3. Height. Each wind tower blade tip must not exceed the height allowed under the Determination of No Hazard to Air Navigation by the Federal Aviation Administration under 14 CFR part 77.
4. Noise. The WECS 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.
5. Lighting. The WECS must be equipped with functioning light-mitigating technology. To allow proper conspicuity of a wind turbine at night during construction, a turbine may be lit with temporary lighting until the permanent lighting configuration, including the light-mitigating technology, is implemented. The Township may grant a temporary exemption from the requirements of this subparagraph if installation of appropriate light-mitigating technology is not feasible. A request for a temporary exemption must be in writing and state the following:
 - a. The purpose of the exemption.
 - b. The proposed length of the exemption.
 - c. A description of the light-mitigating technologies submitted to the Federal Aviation Administration.
 - d. The technical or economic reason a light-mitigating technology is not feasible.
 - e. Any other relevant information requested by the Township.
6. Radar Interference. The WECS must meet any standards concerning radar interference, lighting (subject to subparagraph (5)), or other relevant issues as determined by the Township.
7. Environmental Regulations. The WECS must comply with applicable state or federal environmental regulations.
8. 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 WECS 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 other projects as agreed to by the Township and the applicant.

Section 6. Severability and Validity.

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 7. 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 8. Effective Date.

This Ordinance takes effect upon the expiration of 7 days after publication as required by MCL 125.3401(7).

CHARTER TOWNSHIP OF COOPER

NOTICE OF POSTING TO INTRODUCE PROPOSED ORDINANCES

PLEASE TAKE NOTICE that at its meeting on January 13, 2025, the Township Board received the following proposed Zoning Ordinance amendments:

1. Consideration of Ordinance No. 274 to amend Section 120.460: Wind Energy Conversion Systems to update definitions, new requirements for a decommission plan and emergency response plan, and to include the new site development requirements outlined in Public Act 233 of 2023, which regulates permitting requirements for renewable energy systems and storage facilities.
2. Consideration of Ordinance No. 275 to amend Section 120.470: Solar Energy Systems to update definitions, new requirements for a decommission plan and emergency response plan, and to include the new site development requirements outlined in Public Act 233 of 2023, which regulates permitting requirements for renewable energy systems and storage facilities.
3. Consideration of Ordinance No. 276 to add Section 120.465: Utility-Scale Battery Energy Storage Systems per the requirements outlined in Public Act 233 of 2023, which regulates permitting requirements for renewable energy systems and storage facilities.

These Ordinances will be considered for adoption on February 10, 2025, at 7:00 p.m. The proposed Ordinances are available in their entirety for public inspection. The proposed Ordinances are posted at the office of the Township Clerk, 1590 West D Avenue, Kalamazoo, Michigan, and are posted on the website of the Charter Township of Cooper, www.coopertwp.org.

DEANNA JANSSEN, Clerk
Cooper Charter Township Hall
1590 West D Avenue
Kalamazoo, MI 49009
(269) 382-0223

**CHARTER TOWNSHIP OF COOPER
RESOLUTION NO. 25-289**

**RESOLUTION INTRODUCING ORDINANCE NO. 275, AN ORDINANCE TO INTRODUCE AMENDMENTS TO
THE TOWNSHIP ZONING ORDINANCE**

A resolution made and adopted at a meeting of the Township Board of the Charter Township of Cooper, Kalamazoo County, State of Michigan, held on January 13, 2025, at 7:00 P.M.

PRESENT: _____

ABSENT: _____

The following Resolution was offered by _____ and seconded by _____.

WHEREAS, pursuant to the Michigan Zoning Enabling Act, Act 110 of 2006, MCL 125.3101 *et seq.* ("MZEA"), the Charter Township of Cooper ("Township") has authority to adopt and amend zoning ordinances regulating the use of land in the Township; and

WHEREAS, the Township desires to consider amending its Zoning Ordinance, specifically Section 120.470: Solar Energy Systems, to ensure the ordinance meets the new requirements of Public Act 233, which provides permitting requirements for utility-scale solar energy systems; and

WHEREAS, the Township would like to amend the Ordinance with these new requirements, as well as adding regulations for the removal of a solar energy system and an emergency response plan; and

WHEREAS, upon giving notice in accordance with the MZEA, the Township Planning Commission ("Planning Commission") held a public hearing regarding the proposed zoning ordinance amendments on December 18, 2024; and

WHEREAS, following the public hearing, the Planning Commission recommended that the proposed zoning ordinance amendments be approved by the Township Board.

NOW, THEREFORE, the Township Board of the Charter Township of Cooper resolves as follows:

1. The Township hereby introduces Ordinance No. 275, An Ordinance to Adopt Amendments to the Township Zoning Ordinance (the "Ordinance," attached as Exhibit A).

2. The Township Board will consider adopting the Ordinance at its next regular meeting on February 10, 2025, at 7:00 p.m.

3. Pursuant to Section 20 of the Michigan Charter Township Act, Act 82 of 1994, MCL 42.1 *et seq.* (the "Act"), the Clerk is directed to publish the Ordinance in accordance with Section 8 of the Act by posting it in the office of the Clerk and on the Township's website. The Clerk is further directed to publish notice of the posting in a form substantially conforming to Exhibit B in a newspaper of general circulation within seven (7) days after the posting. The notice shall describe the purpose of the Ordinance and state that it is posted in the office of the Clerk and on the Township's website.

4. A copy of the Ordinance shall be available for examination at the office of the Clerk, and copies may be provided for a reasonable charge.

5. Any and all resolutions that are in conflict with this Resolution are hereby repealed to the extent necessary to give this Resolution full force and effect.

YEAS: _____

NAYS: _____

STATE OF MICHIGAN)
 :
COUNTY OF KALAMAZOO)

I, the undersigned, the duly qualified and acting Clerk of the Charter Township of Cooper, Kalamazoo County, Michigan, DO HEREBY CERTIFY that the foregoing is a true and complete copy of certain proceedings taken by the Township Board at a regular meeting held pursuant to the Open Meetings Act on the 13th day of January, 2025.

DeAnna Janssen
Clerk, Cooper Charter Township

**CHARTER TOWNSHIP OF COOPER
COUNTY OF KALAMAZOO
ORDINANCE NO. 275
AN ORDINANCE TO AMEND THE ZONING ORDINANCE TO REGULATE SOLAR ENERGY SYSTEMS**

The Charter Township of Cooper ordains amendments to Section 120.470: Solar Energy Systems of the Zoning Ordinance:

Section 1. Amendment to Section 120.14: Definitions.

The following definitions are amended or added to Section 120.14: Definitions:

1. Solar Energy System (SES): Any part of a system that captures and converts solar radiation or energy for the purpose of transforming it into any other form of usable energy, including but not limited to the collection and transfer of heat created by solar energy to any other medium by any means.
2. Solar Energy System, Commercial: A SES for the primary purpose of sale or for use in locations through the electrical grid or export to the wholesale market. A solar energy facility includes, but is not limited to, the following equipment and facilities to be constructed by an electric provider or independent power producer: photovoltaic solar panels; solar inverters; access roads; distribution, collection, and feeder lines; wires and cables; conduit; footings; foundations; towers; poles; crossarms; guy lines and anchors; substations; interconnection or switching facilities; circuit breakers and transformers; energy storage facilities; overhead and underground control; communications and radio relay systems and telecommunications equipment; utility lines and installations; generation tie lines; solar monitoring stations; and accessory equipment and structures.
3. Solar Energy System, Private: A SES designed for the sole purpose of supplying or supplementing energy needs of a single private property owner.

Section 2. Amendment to Section 120.470.C: Commercial Solar Energy Systems.

Subsection 120.470.C.5 is amended as follows:

5. Landscaping shall be provided to screen the system from view on all sides. The natural screening regulations of 120.350: Screening shall apply.

Subsection 120.470.C.8 is amended as follows:

8. To ensure proper removal of a Commercial SES upon discontinued use or abandonment, applications shall include a decommissioning plan that ensures the return of all participating properties to a useful condition for uses within the I-2 or I-3 Industrial District and to the satisfaction of the Zoning Administrator, including removal of above-surface facilities and infrastructure that have no ongoing purpose. The decommissioning plan shall include, but is not limited to, financial assurance in the form of a bond, a parent company financial guarantee, or an irrevocable letter of credit. The financial security guarantee for the removal of the system must be posted with the Township within fifteen (15) days after special exception use approval or before a

construction permit is issued for the facility. The amount of such a guarantee shall be no less than the estimated cost of removal and may include a provision for inflationary cost adjustments. The estimate shall be prepared by a third party with expertise in decommissioning such sites, hired by the applicant and shall be subject to approval by the Township.

Subsection 120.470.C.10 is added to include the following regulations:

10. The Commercial SES shall submit an emergency response plan (ERP), which shall at a minimum include:
 - a) Evidence of consultation or a good faith effort to consult with local first responders and county emergency managers to ensure that the ERP is aligned with acceptable operating procedures, capabilities, resources, etc.
 - b) An identification of contingencies that would constitute a safety or security emergency, including fire emergencies response plan.
 - c) A description of all on-site equipment and systems to be provided to prevent or handle emergencies, including fire emergencies.
 - d) Emergency response measures for each contingency.
 - e) Evacuation control measures for each contingency.
 - f) Community notification procedures for each contingency.
 - g) An identification of potential approach and departure routes to and from the facility site for police, fire, ambulance, and other emergency vehicles.
 - h) A commitment to review and update the ERP with fire departments, first responders, and county emergency managers at least once every three (3) years.
 - i) An analysis of whether plans to be implemented in response to an emergency can be fulfilled by existing local emergency response capacity, and identification of any specific equipment or training deficiencies in local emergency response capacity.
 - j) Any other information relevant to an emergency response to the Commercial SES.

Section 3. Amendment to Section 120.470.D: Commercial Solar Energy Systems under PA 233.

A new Subsection 120.470.D is to add the following:

- D. Commercial Solar Energy Systems under PA 233.** On or after November 29, 2024, once PA 233 of 2023 is in effect, the following provisions apply to any Commercial SES with a nameplate capacity of 50 megawatts or more. To the extent the following provisions conflict with the provisions in Sections 120.470.A. through C., these provisions control any Commercial SES with a nameplate capacity of 50 megawatts or more. All provisions in Sections 120.470.A. through C. that do not conflict with this subsection remain in full force and effect. The following provisions do not apply

if PA 233 of 2023 is repealed, enjoined, or otherwise not in effect, and do not apply to any Commercial SES with a nameplate capacity of less than 50 megawatts.

1. Setbacks. An SES 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. Fencing. Fencing for the SES must comply with the latest version of the National Electric Code as of November 29, 2024, or as subsequently amended.
3. Height. Solar panel components must not exceed a maximum height of 25 feet above ground when the arrays are at full tilt.
4. Noise. The SES 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.
5. Lighting. The SES must implement dark sky-friendly lighting solutions.
6. Environmental Regulations. The SES must comply with applicable state or federal environmental regulations.
7. Host Community Agreement. The applicant for a special land use permit for an SES shall enter into a host community agreement with the Township. The host community agreement shall require that, upon commencement of any operation, the SES 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 Township and the applicant.

Section 4. Severability and Validity.

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 upon the expiration of 7 days after publication as required by MCL 125.3401(7).

CHARTER TOWNSHIP OF COOPER**NOTICE OF POSTING TO INTRODUCE PROPOSED ORDINANCES**

PLEASE TAKE NOTICE that at its meeting on January 13, 2025, the Township Board received the following proposed Zoning Ordinance amendments:

1. Consideration of Ordinance No. 274 to amend Section 120.460: Wind Energy Conversion Systems to update definitions, new requirements for a decommission plan and emergency response plan, and to include the new site development requirements outlined in Public Act 233 of 2023, which regulates permitting requirements for renewable energy systems and storage facilities.
2. Consideration of Ordinance No. 275 to amend Section 120.470: Solar Energy Systems to update definitions, new requirements for a decommission plan and emergency response plan, and to include the new site development requirements outlined in Public Act 233 of 2023, which regulates permitting requirements for renewable energy systems and storage facilities.
3. Consideration of Ordinance No. 276 to add Section 120.465: Utility-Scale Battery Energy Storage Systems per the requirements outlined in Public Act 233 of 2023, which regulates permitting requirements for renewable energy systems and storage facilities.

These Ordinances will be considered for adoption on February 10, 2025, at 7:00 p.m. The proposed Ordinances are available in their entirety for public inspection. The proposed Ordinances are posted at the office of the Township Clerk, 1590 West D Avenue, Kalamazoo, Michigan, and are posted on the website of the Charter Township of Cooper, www.coopertwp.org.

DEANNA JANSSEN, Clerk
Cooper Charter Township Hall
1590 West D Avenue
Kalamazoo, MI 49009
(269) 382-0223

**CHARTER TOWNSHIP OF COOPER
RESOLUTION NO. 25-290**

**RESOLUTION INTRODUCING ORDINANCE NO. 276, AN ORDINANCE TO INTRODUCE AMENDMENTS TO
THE TOWNSHIP ZONING ORDINANCE**

A resolution made and adopted at a meeting of the Township Board of the Charter Township of Cooper, Kalamazoo County, State of Michigan, held on January 13, 2025, at 7:00 P.M.

PRESENT: _____

ABSENT: _____

The following Resolution was offered by _____ and seconded by _____.

WHEREAS, pursuant to the Michigan Zoning Enabling Act, Act 110 of 2006, MCL 125.3101 *et seq.* ("MZEA"), the Charter Township of Cooper ("Township") has authority to adopt and amend zoning ordinances regulating the use of land in the Township; and

WHEREAS, the Township desires to consider amending its Zoning Ordinance, specifically adding Section 120.465: Utility-Scale Energy Storage Systems, to ensure the Zoning Ordinance meets the new requirements of Public Act 233, which provides siting and permitting requirements for utility-scale energy storage systems; and

WHEREAS, upon giving notice in accordance with the MZEA, the Township Planning Commission ("Planning Commission") held a public hearing regarding the proposed zoning ordinance amendments on December 18, 2024; and

WHEREAS, following the public hearing, the Planning Commission recommended that the proposed zoning ordinance amendments be approved by the Township Board.

NOW, THEREFORE, the Township Board of the Charter Township of Cooper resolves as follows:

1. The Township hereby introduces Ordinance No. 276, An Ordinance to Adopt Amendments to the Township Zoning Ordinance (the "Ordinance," attached as Exhibit A).

2. The Township Board will consider adopting the Ordinance at its next regular meeting on February 10, 2025, at 7:00 p.m.

3. Pursuant to Section 20 of the Michigan Charter Township Act, Act 82 of 1994, MCL 42.1 *et seq.* (the "Act"), the Clerk is directed to publish the Ordinance in accordance with Section 8 of the Act by posting it in the office of the Clerk and on the Township's website. The Clerk is further directed to publish notice of the posting in a form substantially conforming to Exhibit B in a newspaper of general circulation within seven (7) days after the posting. The notice shall describe the purpose of the Ordinance and state that it is posted in the office of the Clerk and on the Township's website.

4. A copy of the Ordinance shall be available for examination at the office of the Clerk, and copies may be provided for a reasonable charge.

5. Any and all resolutions that are in conflict with this Resolution are hereby repealed to the extent necessary to give this Resolution full force and effect.

YEAS: _____

NAYS: _____

STATE OF MICHIGAN)
 :
COUNTY OF KALAMAZOO)

I, the undersigned, the duly qualified and acting Clerk of the Charter Township of Cooper, Kalamazoo County, Michigan, DO HEREBY CERTIFY that the foregoing is a true and complete copy of certain proceedings taken by the Township Board at a regular meeting held pursuant to the Open Meetings Act on the 13th day of January, 2025.

DeAnna Janssen
Clerk, Cooper Charter Township

**CHARTER TOWNSHIP OF COOPER
COUNTY OF KALAMAZOO
ORDINANCE NO. 276
AN ORDINANCE TO AMEND THE ZONING ORDINANCE TO REGULATE UTILITY-SCALE BATTERY ENERGY STORAGE SYSTEMS**

The Charter Township of Cooper ordains:

Section 1. Amendment of Section 120.14 of the Zoning Ordinance.

The following definitions are added to Section 120.14 of the Zoning Ordinance and shall be inserted into Section 120.14 in alphabetical order:

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.

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 with a battery management system.

Utility-Scale Battery Energy Storage System (“UBESS”): A physical container providing secondary containment to battery cells that is equipped with cooling, ventilation, fire suppression, and a battery management system.

Section 2. Addition of New Section 120.465 to the Zoning Ordinance.

A new Section 120.465 is added to the Zoning Ordinance and reads in its entirety as follows:

120.465 Utility-Scale Battery Energy Storage Systems

A. General Requirements:

All UBESS are subject to the following requirements:

1. All UBESS must conform to the provisions of this Section 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 may enforce any remedy or enforcement, including but not limited to the removal of any UBESS pursuant to the Zoning Ordinance or as otherwise authorized by law if the UBESS does not comply with this Section.
3. UBESS are permitted in the Township only as a special exception use in the “I-2” or “I-3” Industrial Districts.

B. Special Exception Application Requirements:

In addition to the requirements of Section 120.420 for a special exception permit, an applicant for special exception use approval of a UBESS must provide the Township with all the following:

1. An application fee in an amount set by resolution of the Township Board.
2. A list of all parcel numbers that the UBESS will use; 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 parameters of the operation, 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 UBESS 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 UBESS.
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 UBESS, including evidence of proposed commitments with property owners to ensure proper final reclamation, repairs to roads, and other steps necessary to fully remove the UBESS 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 UBESS, 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 fire protection plan, which identifies the fire risks associated with the UBESS; describes the fire suppression system that will be implemented; describes what measures will be used to reduce the risk of fires re-igniting (i.e., implementing a “fire watch”); identifies the water sources that will be available for the local fire department to protect adjacent properties; identifies a system for continuous monitoring, early detection sensors, and appropriate venting; and explains all other measures that will be implemented to prevent, detect, control, and suppress fires and explosions.
13. 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.
14. 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 UBESS, which is subject to the Township’s review and approval.
15. 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 Township considers the application.
16. Any additional information or documentation requested by the Planning Commission, Township Board, or other Township representative.

C. System and Location Requirements:

In addition to the requirements of Section 120.430 for a site plan, a UBESS site plan must include all the following:

1. Lighting. The lighting of the UBESS 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 UBESS. The UBESS must not produce any glare that is visible to neighboring lots or persons traveling on public or private roads.
2. Security Fencing. Security fencing must be installed around all electrical equipment related to the UBESS. Appropriate warning signs must be posted at safe intervals at the entrance and around the perimeter of the UBESS.
3. Noise. The noise generated by the UBESS must not exceed 45 dBA Lmax, as measured at the property line of any adjacent parcel.
4. Underground Transmission. All power transmission or other lines, wires, or conduits from a UBESS 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.

5. Drain Tile Inspections. The UBESS must be maintained in working condition at all times while in operation. The applicant or operator must inspect all drain tiles at least once every three years using a robotic camera, with the first inspection occurring before the UBESS 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.
6. Fire Protection.
 - a. Before any construction of the UBESS begins, the Township's fire department (or the fire department with which the Township contracts for fire service) will review the fire protection plan submitted with the application. The fire chief will determine whether the fire protection plan adequately protects the Township's residents and property and whether there is sufficient water supply to comply with the fire protection plan and to respond to fire or explosion incidents. If the fire chief determines that the plan is adequate, then the fire chief will notify the Township Supervisor or his or her designee of that determination. If the fire chief determines that the plan is inadequate, then the fire chief may propose modifications to the plan, which the applicant or operator of the UBESS must implement. The fire chief's decision may be appealed to the Township Board, and the Township Board will hear the appeal at an open meeting. The Township Board may affirm, reverse, or modify the fire chief's determination. The Township Board's decision is final, subject to any appellate rights available under applicable law.
 - b. The applicant or operator may amend the fire protection plan from time-to-time in light of changing technology or other factors. Any proposed amendment must be submitted to the fire department for review and approval under subsection (a).
 - c. The UBESS must comply with the fire protection plan as approved by the fire chief (or as approved by the Township Board in the event of an appeal).
7. 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. The Township shall be listed as an additional insured on the policy at all times.
8. Permits. All required county, state, and federal permits must be obtained before the UBESS begins operating. A building permit is required for construction of a UBESS, regardless of whether the applicant or operator is otherwise exempt under state law.
9. Decommissioning. If a UBESS is abandoned or otherwise non-operational 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 a **useful condition for uses within the I-2 or I-3 Industrial District and to** the satisfaction of the Zoning Administrator. The site must 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 UBESS that is never fully completed or operational if construction has been halted for a period of one (1) year.

10. **Financial Security.** To ensure proper decommissioning of a UBESS upon abandonment, the applicant must post financial security in the form of a security bond or escrow payment 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.
11. **Extraordinary Events.** If the UBESS 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.
12. **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.
13. **Inspections.** The Township may inspect a UBESS at any time by providing 24-hour advance notice to the applicant or operator.
14. **Transferability.** A conditional land use permit for a UBESS is transferable to a new owner. The new owner must register their name and business address with the Township and must comply with this Ordinance and all approvals and conditions issued by the Township.
15. **Remedies.** If an applicant or operator fails to comply with this Ordinance, the Township, may pursue any remedy or enforcement, including but not limited to the removal of any UBESS pursuant to the Zoning Ordinance or as otherwise authorized by law. 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, once PA 233 of 2023 is in effect, the following provisions apply to any UBESS 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 subsections 120.465(A)-(C), these provisions control as to such UBESS. This subsection does not apply if PA 233 of 2023 is repealed, enjoined, or otherwise not in effect, and does not apply to a UBESS with a nameplate capacity of fewer than 50 megawatts or an energy discharge capability of less than 200 megawatt hours. All provisions in subsections 120.465(A)-(C) that do not conflict with this subsection (D) remain in full force and effect.

1. Setbacks. The UBESS 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. Installation. The UBESS 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.
3. Noise. The UBESS 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 UBESS must implement dark sky-friendly lighting solutions.
5. Environmental Regulations. The UBESS 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 UBESS 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 other projects as agreed to by the Township and the applicant.

Section 3. 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 4. 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 5. Effective Date.

This Ordinance takes effect upon the expiration of 7 days after publication as required by MCL 125.3401(7).

CHARTER TOWNSHIP OF COOPER

NOTICE OF POSTING TO INTRODUCE PROPOSED ORDINANCES

PLEASE TAKE NOTICE that at its meeting on January 13, 2025, the Township Board received the following proposed Zoning Ordinance amendments:

1. Consideration of Ordinance No. 274 to amend Section 120.460: Wind Energy Conversion Systems to update definitions, new requirements for a decommission plan and emergency response plan, and to include the new site development requirements outlined in Public Act 233 of 2023, which regulates permitting requirements for renewable energy systems and storage facilities.
2. Consideration of Ordinance No. 275 to amend Section 120.470: Solar Energy Systems to update definitions, new requirements for a decommission plan and emergency response plan, and to include the new site development requirements outlined in Public Act 233 of 2023, which regulates permitting requirements for renewable energy systems and storage facilities.
3. Consideration of Ordinance No. 276 to add Section 120.465: Utility-Scale Battery Energy Storage Systems per the requirements outlined in Public Act 233 of 2023, which regulates permitting requirements for renewable energy systems and storage facilities.

These Ordinances will be considered for adoption on February 10, 2025, at 7:00 p.m. The proposed Ordinances are available in their entirety for public inspection. The proposed Ordinances are posted at the office of the Township Clerk, 1590 West D Avenue, Kalamazoo, Michigan, and are posted on the website of the Charter Township of Cooper, www.coopertwp.org.

DEANNA JANSSEN, Clerk
Cooper Charter Township Hall
1590 West D Avenue
Kalamazoo, MI 49009
(269) 382-0223

Recommended Changes to Wind Energy Conversion Systems

120.14 Definitions

1. Wind Energy Conversion System ("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.
2. Small Turbine/On-site System ("Small Turbine WECS"): A system is intended to primarily serve supply or supplement the energy needs of the customer a single private property owner, with a single tower that may or may not be connected to the utility grid.
3. Large Turbine/Utility Grid System ("Large Turbine WECS") is designed to generate electricity from one or more towers (within an array) and is intended for sale or use in location through the electrical grid or export to the wholesale market to serve institutions, residential communities, or larger cooperatives. Large Turbine WECS includes, but is not limited to, the following equipment and facilities to be constructed by an electric provider or independent power producer: wind towers; wind turbines; access roads; distribution, collection, and feeder lines; wires and cables; conduit; footings; foundations; towers; poles; crossarms; guy lines and anchors; substations; interconnection or switching facilities; circuit breakers and transformers; energy storage systems; overhead and underground control; communications and radio relay systems and telecommunications equipment; monitoring and recording equipment and facilities; erosion control facilities; utility lines and installations; generation tie lines; ancillary buildings; wind monitoring stations; and accessory equipment and structures.

120.460 Wind Energy Conversion Systems

A. Purpose:

The regulation of wind energy conversion systems, 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.

B. Definitions:

- ~~1. Wind energy conversion system ("WECS") is 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.~~
- ~~2. Small turbine/on-site system ("Small Turbine WECS") is intended to primarily serve the needs of the customer, with a single tower that may or may not be connected to the utility grid.~~
- ~~3. Large turbine/utility grid system ("Large Turbine WECS") is designed to generate electricity from one or more towers (within an array) and is intended to serve institutions, residential communities, or larger cooperatives.~~

B. Use Approval:

1. Small Turbine WECS

Due to the concerns related to health, safety and welfare, **Small Turbine WECS** shall be regulated as special exception uses within the “A” Agricultural District, the “R-1”, “R-2”, “R-3”, “R-4”, “R-5”, “R-6” residential zoning districts, and the “RD” Recreation District. **Small Turbine WECS** shall be regulated as a permitted use subject to conditions within the “C-1”, “C-2”, and “C-3” commercial districts and the “I-1”, “I-2” and “I-3” industrial districts, provided such land area is sufficient to support their development and operation. Roof-mounted WECS that do not exceed the height regulation within the underlying zoning district shall also be considered a permitted use, provided such location does not exceed the noise requirements at the adjoining property line.

2. Large Turbine WECS

Due to the commercial nature of Large Turbine WECS, they shall be regulated as a special exception use in the “A” Agricultural District, “R-1” Rural Residential District, and as a permitted use subject to conditions in the “I-1”, “I-2”, and “I-3” Industrial Districts.

3. The following requirements shall be met, and the Planning Commission may impose additional conditions for special exception use approval where appropriate:

- a. In addition to the requirements for site plan review, the site plan of the property shall show the location of overhead electrical transmission or distribution lines, whether utilized or not, and the location of the WECS with its specific dimensions, including the entire area through which the rotor(s) may pass, the location of any guy wires or other support devices, and the location of all dwelling units within five hundred (500) feet of the WECS.
- b. Each application shall be accompanied by a complete set (either the original or an accurately reproduced copy) of the manufacturer’s instructions which shall, at a minimum, include the following:
 - i. A standard foundation and anchor design or specifications for normal soil conditions.
 - ii. Detailed instructions for operation and maintenance of the WECS on site.
 - iii. A copy of all warnings and/or documents provided by the manufacturer of the WECS.
 - iv. Grounding and lightning procedures protection which follow the National Electrical Code, Articles 250 (Grounding) and 280 (Lightning Arresters).
- c. Proof of Insurance **and** the Underwriters Label shall be attached to the base of the tower and any subsystem, such as the generator, and the following information shall be included:
 - i. The name, address, and telephone number of the owner of the tower/subsystem;
 - ii. Manufacturer’s name and address;
 - iii. Model number;
 - iv. Serial number;
 - v. Emergency and normal shutdown procedures;
 - vi. The survival wind speed in miles per hour and meters per second for the tower and the maximum power output for the generator;
 - vii. Name of installer;
 - viii. Name of person responsible for maintenance; and

- ix. Emergency telephone numbers in force for the installer and the person responsible for maintenance.
- 4. Electromagnetic Interference: The entire WECS (including turbines, alternators, generators, and interconnect systems) shall be filtered and/or shielded to prevent the emission of generated radio frequency energy which would cause any interference with radio and/or television broadcasting or reception, and shall comply with Federal Communication Rules, 47 CFR, parts 15 (including sub parts A and F) and 18 (including sub parts A, D and H).
- 5. Noise: The maximum level of noise permitted to be generated by any WECS shall be fifty (50) decibels, as measured on the DBA scale, measured at the property line nearest the WECS. The Planning Commission may request that a baseline study of the decibel levels existing prior to the installation be included as required documentation for review.

C. Site Development:

The following site development requirements shall be imposed on the approval of the special exception use:

1. Lot Area/Setbacks:

No Small Turbine WECS shall be erected on any lot or parcel less than one (1) acre in area. No Large Turbine WECS shall be erected on any parcel less than twenty (20) acres in area. The tower(s) shall be situated on the lot or parcel so that no portion of the tower or turbine is closer to above-ground utility lines and/or property lines than 150% of the height of the tower as defined in ~~(b)~~ **D.2.** below. For roof-mounted systems exceeding the height within the underlying zoning district, no lot area requirement is imposed, but the minimum setback from any property line shall be no less than 110% of the combined height of the roof location and system, including any blades.

2. Height:

- a. The maximum allowable height for any Small Turbine WECS, based upon the combined tower and rotor blade length, shall be:
 - i. 40 feet for parcels of one to less than five acres;
 - ii. 80 feet for parcels of five to less than ten acres; and
 - iii. Up to 120 feet for parcels of ten acres or more.
- b. The maximum allowable height for any Large Turbine WECS, based upon the combined tower and rotor blade length, shall be three hundred (300) feet. The Planning Commission, in consideration of such request, may waive this height requirement where such proposed location does not negatively impact adjoining properties and where such adjoining property owner has indicated through formal letter that such waiver is acceptable.
- c. 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.

3. Accessibility: Towers shall be designed and constructed in such a manner that climbing devices are only accessible with a separate ladder to a height of 12 feet.
4. Connection to power grid: In the case of a WECS 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 resident/owner shall comply with all requirements of the servicing utility if the WECS is interfaced with the utility grid. The utility shall install appropriate electric metering (for sellback or non-sellback), and the customer shall install a disconnecting device adjacent to the electric meter(s).
5. Vibration: Under no circumstances shall a WECS produce vibrations humanly perceptible beyond lot boundaries.
6. Additional studies: The applicant may offer and submit, or the Planning Commission may require that the applicant submit studies related to noise, vibration, or similar issues that may be considered a nuisance. In addition, such studies may include avian and wildlife impact, visual impacts, shadow flicker (changes in light intensity caused by the moving blade) or similar issues based upon compatibility of the proposed use in the requested location.

D. Decommission Plan/Site Reclamation:

~~The applicant shall submit a plan that indicates the designed life of the system, the estimated cost and method to ensure proper installation and removal, and the manner in which the site will be reclaimed. The Township may impose a bond or request similar surety that such system will be removed or replaced after this useful design life.~~

1. To ensure proper removal of a WECS upon discontinued use or abandonment, applications shall include a decommissioning plan that ensures the return of all participating properties to a useful condition for uses within the I-2 or I-3 Industrial District and to the satisfaction of the Zoning Administrator, including removal of above-surface facilities and infrastructure that have no ongoing purpose. The decommissioning plan shall include, but is not limited to, financial assurance in the form of a bond, a parent company financial guarantee, or an irrevocable letter of credit. The financial security guarantee for the removal of the system must be posted with the Township within fifteen (15) days after special exception use approval or before a construction permit is issued for the facility. The amount of such a guarantee shall be no less than the estimated cost of removal and may include a provision for inflationary cost adjustments. The estimate shall be prepared by a third party with expertise in decommissioning such sites, hired by the applicant and shall be subject to approval by the Township.
2. If the owner of the facility or the property owner fails to remove or repair the defective or abandoned WECS, the Township, in addition to any other remedy under this Ordinance, may pursue legal action to abate the violation by seeking to remove the WECS and recover any and all costs, including attorney fees.

E. Emergency Response Plan:

The Large Turbine WECS shall submit an emergency response plan (ERP), which shall at a minimum include:

1. Evidence of consultation or a good faith effort to consult with local first responders and county emergency managers to ensure that the ERP is aligned with acceptable operating procedures, capabilities, resources, etc.
2. An identification of contingencies that would constitute a safety or security emergency, including fire emergencies response plan.
3. A description of all on-site equipment and systems to be provided to prevent or handle emergencies, including fire emergencies.
4. Emergency response measures for each contingency.
5. Evacuation control measures for each contingency.
6. Community notification procedures for each contingency.
7. An identification of potential approach and departure routes to and from the facility site for police, fire, ambulance, and other emergency vehicles.
8. A commitment to review and update the ERP with fire departments, first responders, and county emergency managers at least once every three (3) years.
9. An analysis of whether plans to be implemented in response to an emergency can be fulfilled by existing local emergency response capacity, and identification of any specific equipment or training deficiencies in local emergency response capacity.
10. Any other information relevant to an emergency response to the Commercial WECS.

F. WECS under PA 233.

On or after November 29, 2024, once PA 233 of 2023 is in effect, then the following provisions apply to any WECS with a nameplate capacity of 100 megawatts or more. To the extent these provisions conflict with the provisions in subsections 120.460(A)-(E), these provisions control as to a WECS with a nameplate capacity of 100 megawatts or more. All provisions in subsections 120.460(A)-(E) that do not conflict with this subsection (F) remain in full force and effect. This subsection (F) does not apply if PA 233 of 2023 is repealed, enjoined, or otherwise not in effect and does not apply to a WECS with a nameplate capacity of less than 100 megawatts.

1. Setbacks. WECS must comply with the following minimum setback requirements, with setback distances measured from the center of the base of the wind tower:

Setback Description	Setback Distance
Occupied community buildings and dwellings on nonparticipating properties	2.1 times the maximum blade tip height to the nearest point on the outside wall of the structure
Residences and other structures on participating properties	1.1 times the maximum blade tip height to the nearest point on the outside wall of the structure
Nonparticipating property lines	1.1 times the maximum blade tip height
Public road right-of-way	1.1 times the maximum blade tip height to the center line of the public road right-of-way
Overhead communication and electric transmission, not including utility service lines to individual houses or outbuildings	1.1 times the maximum blade tip height to the center line of the easement containing the overhead line

2. Shadow Flicker. Each wind tower must be sited such that any occupied community building or nonparticipating residence will not experience more than 30 hours per year of shadow flicker under planned operating conditions as indicated by industry-standard computer modeling.
3. Height. Each wind tower blade tip must not exceed the height allowed under the Determination of No Hazard to Air Navigation by the Federal Aviation Administration under 14 CFR part 77.
4. Noise. The WECS 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.
5. Lighting. The WECS must be equipped with functioning light-mitigating technology. To allow proper conspicuity of a wind turbine at night during construction, a turbine may be lit with temporary lighting until the permanent lighting configuration, including the light-mitigating technology, is implemented. The Township may grant a temporary exemption from the requirements of this subparagraph if installation of appropriate light-mitigating technology is not feasible. A request for a temporary exemption must be in writing and state the following:
 - a. The purpose of the exemption.
 - b. The proposed length of the exemption.
 - c. A description of the light-mitigating technologies submitted to the Federal Aviation Administration.
 - d. The technical or economic reason a light-mitigating technology is not feasible.
 - e. Any other relevant information requested by the Township.
6. Radar Interference. The WECS must meet any standards concerning radar interference, lighting (subject to subparagraph (5)), or other relevant issues as determined by the Township.

7. Environmental Regulations. The WECS must comply with applicable state or federal environmental regulations.
8. 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 WECS 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 other projects as agreed to by the Township and the applicant.

Recommended Changes for Solar Energy Systems

120.14 Definitions

Solar Energy System (SES): Any part of a system that ~~collects or stores~~ captures and converts solar radiation or energy for the purpose of transforming it into any other form of usable energy, including but not limited to the collection and transfer of heat created by solar energy to any other medium by any means.

Solar Energy System, Commercial: A SES for the primary purpose of sale or for use in locations through the electrical grid or export to the wholesale market. A solar energy facility includes, but is not limited to, the following equipment and facilities to be constructed by an electric provider or independent power producer: photovoltaic solar panels; solar inverters; access roads; distribution, collection, and feeder lines; wires and cables; conduit; footings; foundations; towers; poles; crossarms; guy lines and anchors; substations; interconnection or switching facilities; circuit breakers and transformers; energy storage facilities; overhead and underground control; communications and radio relay systems and telecommunications equipment; utility lines and installations; generation tie lines; solar monitoring stations; and accessory equipment and structures.

Solar Energy System, Private: A SES designed for the sole purpose of supplying or supplementing energy needs of a single private property owner.

120.470 Solar Energy Systems

A. General Requirements:

All Solar Energy Systems are subject to the following general requirements:

1. All Solar Energy Systems must conform to the provisions of this Ordinance and all County, State, and Federal regulations and safety requirements as well as applicable industry standards.
2. Solar Energy Systems shall be located or placed so that concentrated solar glare shall not be directed toward or onto nearby properties or roadways at any time of the day.

B. Private Solar Energy Systems (SES):

1. Private ~~SES Solar Energy System BIVPs~~ Private Solar Energy System BIVPs SES shall be permitted in all zoning districts, provided such ~~BIVPs~~ SES conforms to applicable County, State and Federal regulations and safety requirements, including the Michigan Building Code.
2. A building permit shall be required for the installation of any ~~BIVPs~~ Private SES.
3. Roof or Building Mounted Private ~~Solar Energy Systems~~ SES. Roof or building mounted Private ~~Solar Energy Systems~~ SES shall be considered an accessory use in all zoning districts, subject to the following requirements:

- a) No part of the ~~Solar Energy System~~ **SES** erected on a roof shall extend beyond the peak of the roof. If the ~~Solar Energy System~~ **SES** is mounted on a building in an area other than the roof, no part of the ~~Solar Energy System~~ **SES** shall extend beyond the wall on which it is mounted.
 - b) No part of a ~~Solar Energy System~~ **SES** mounted on a roof shall be installed closer than three (3) feet from the edges of the roof, the peak, or eave or valley in order to maintain pathways of accessibility.
 - c) No part of a ~~Solar Energy System~~ **SES** mounted on a roof shall extend more than two (2) feet above the surface of the roof.
 - d) In the event that a roof or building mounted ~~Solar Energy System~~ **SES** has been abandoned (meaning not having been in operation for a period of one (1) year), it shall be removed by the property owner within six (6) months from the date of abandonment.
 - e) A building permit shall be required for the installation of roof or building mounted Private ~~Solar Energy Systems~~ **SES**.
4. Ground Mounted Private ~~Solar Energy Systems~~ **SES**. Ground mounted Private ~~Solar Energy Systems~~ **SES** shall be considered an accessory use in all zoning districts, subject to the following requirements:
- a) Prior to the installation of a ground mounted ~~Solar Energy System~~ **SES**, the property owner shall submit a site plan to the Zoning Administrator. The site plan shall include setbacks, panel size, and the location of property lines, buildings, fences, greenbelts, and road right of ways. The site plan must be drawn to scale.
 - b) A ground mounted ~~Solar Energy System~~ **SES** shall not exceed the maximum building height for adjacent accessory buildings, but in no case shall the maximum height of any ground mounted ~~Solar Energy System~~ **SES** exceed fifteen (15) feet above the ground when oriented at maximum tilt.
 - c) A ground mounted ~~Solar Energy System~~ **SES** shall be located in the rear yard and shall meet the rear yard setback requirements applicable in the zoning district in which the ~~Solar Energy System~~ **SES** will be located.
 - d) All power transmission or other lines, wires or conduits from a ground mounted ~~Solar Energy System~~ **SES** to any building or other structure shall be located underground. If batteries are used as part of the ground mounted ~~Solar Energy System~~ **SES**, they must be placed in a secured container or enclosure.
 - e) There shall be greenbelt screening around any ground mounted ~~Solar Energy Systems~~ **SES** and equipment associated with the system to obscure, to the greatest extent possible, the ~~Solar Energy System~~ **SES** from any adjacent residences. The greenbelt shall consist of shrubbery, trees, or other noninvasive plant species that provide a visual screen. In lieu of a planting greenbelt, a decorative fence (meeting the requirements of this Ordinance applicable to fences) may be used.

- f) No more than 20% of the total lot area may be covered by a ground mounted ~~Solar Energy System~~ **SES**.
- g) In the event that a ground mounted ~~Solar Energy System~~ **SES** has been abandoned (meaning not having been in operation for a period of one (1) year), it shall be removed by the property owner within six (6) months from the date of abandonment.
- h) A building permit shall be required for the installation of a ground mounted ~~Solar Energy System~~ **SES**.

C. Commercial Solar Energy Systems (SES). Commercial ~~Solar Energy Systems~~ **SES** shall only be allowed in the "I-2" or "I-3" Industrial Districts as a special use approved by the Planning Commission. In addition to any other requirements for special use approval, Commercial ~~Solar Energy Systems~~ **SES** shall be ground mounted and are subject to the following requirements:

1. The owner of the property or applicant for a Commercial ~~Solar Energy System~~ **SES** shall provide the Planning Commission with proof of ownership of the subject property, a copy of any lease agreement for a Commercial ~~solar energy system~~ **SES**, together with an operations agreement, which shall set forth the operations parameters, the name and contact information of the certified operator, inspection protocol, emergency procedures and general safety documentation.
2. Commercial ~~Solar Energy Systems~~ **SES** shall be located on parcels of land no less than twenty (20) acres in size.
3. The Commercial ~~Solar Energy System~~ **SES** shall meet the minimum front, side and rear yard setbacks of the zoning district.
4. The height of the Commercial ~~Solar Energy System~~ **SES** and any mounts shall not exceed fifteen (15) feet when oriented at maximum tilt.
5. Landscaping shall be provided to screen the system from view on all sides ~~to the greatest extent possible~~. **The natural screening regulations of 120.350: Screening shall apply.**
6. Prior to installation, the applicant shall submit a descriptive site plan to the Planning Commission which includes where and how the Commercial ~~Solar Energy System~~ **SES** will connect to the power grid.
7. No Commercial ~~solar energy system~~ **SES** shall be installed until evidence has been given to the Planning Commission that the electric utility company has agreed to an interconnection with the electrical grid or a power purchase agreement. Any such agreement shall be furnished to the Planning Commission.
8. To ensure proper removal of a Commercial ~~Solar Energy System~~ **SES** upon discontinued use or abandonment, applications shall include a **decommissioning plan that ensures the return of all participating properties to a useful condition** for uses within the I-2 or I-3 Industrial District and to the satisfaction of the Zoning Administrator, **including removal of above-surface facilities and infrastructure that have no ongoing purpose.** The decommissioning plan shall include, but is not limited to, **financial assurance in the form of a bond, a parent company financial guarantee, or an**

~~description of~~ **irrevocable letter of credit.** The financial security guarantee for the removal of the system which must be posted with the Township within fifteen (15) days after **special exception use** approval or before a construction permit is issued for the facility. ~~The financial security shall be: 1) a cash bond; or 2) an irrevocable bank letter of credit or a performance bond, in a form approved by the Township.~~ The amount of such a guarantee shall be no less than the estimated cost of removal and may include a provision for inflationary cost adjustments. The estimate shall be prepared by **a third party with expertise in decommissioning such sites, hired by the applicant** ~~the engineer for the applicant~~ and shall be subject to approval by the Township.

9. If the owner of the facility or the property owner fails to remove or repair the defective or abandoned Commercial ~~Solar Energy System~~ **SES**, the Township, in addition to any other remedy under this Ordinance, may pursue legal action to abate the violation by seeking to remove the ~~Solar Energy System~~ **SES** and recover any and all costs, including attorney fees.

10. The Commercial SES shall submit an emergency response plan (ERP), which shall at a minimum include:

- a) Evidence of consultation or a good faith effort to consult with local first responders and county emergency managers to ensure that the ERP is aligned with acceptable operating procedures, capabilities, resources, etc.
- b) An identification of contingencies that would constitute a safety or security emergency, including fire emergencies response plan.
- c) A description of all on-site equipment and systems to be provided to prevent or handle emergencies, including fire emergencies.
- d) Emergency response measures for each contingency.
- e) Evacuation control measures for each contingency.
- f) Community notification procedures for each contingency.
- g) An identification of potential approach and departure routes to and from the facility site for police, fire, ambulance, and other emergency vehicles.
- h) A commitment to review and update the ERP with fire departments, first responders, and county emergency managers at least once every three (3) years.
- i) An analysis of whether plans to be implemented in response to an emergency can be fulfilled by existing local emergency response capacity, and identification of any specific equipment or training deficiencies in local emergency response capacity.
- j) Any other information relevant to an emergency response to the Commercial SES.

D. Commercial Solar Energy Systems under PA 233. On or after November 29, 2024, once PA 233 of 2023 is in effect, the following provisions apply to any Commercial SES with a nameplate capacity of 50

megawatts or more. To the extent the following provisions conflict with the provisions in Sections 120.470.A. through C., these provisions control any Commercial SES with a nameplate capacity of 50 megawatts or more. All provisions in Sections 120.470.A. through C. that do not conflict with this subsection remain in full force and effect. The following provisions do not apply if PA 233 of 2023 is repealed, enjoined, or otherwise not in effect, and do not apply to any Commercial SES with a nameplate capacity of less than 50 megawatts.

1. Setbacks. An SES 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. Fencing. Fencing for the SES must comply with the latest version of the National Electric Code as of November 29, 2024, or as subsequently amended.
3. Height. Solar panel components must not exceed a maximum height of 25 feet above ground when the arrays are at full tilt.
4. Noise. The SES 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.
5. Lighting. The SES must implement dark sky-friendly lighting solutions.
6. Environmental Regulations. The SES must comply with applicable state or federal environmental regulations.
7. Host Community Agreement. The applicant for a special land use permit for an SES shall enter into a host community agreement with the Township. The host community agreement shall require that, upon commencement of any operation, the SES 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 Township and the applicant.