

MEMORANDUM

TO: Elk Rapids Township Planning Commission
FROM: Larry Nix, PCP Consulting
DATE: August 27, 2019
RE: Solar/Wind and Farm Market Draft Zoning Amendments



At the last Planning Commission meeting, I was requested to draft zoning ordinance changes to permit farm markets, permit road side stands with zoning administrator review and craft commercial solar/wind energy facility regulations. A strong effort was made to minimize the extent of the regulations but to also properly address the concerns of the Planning Commission and the rural nature of the community. We will discuss these drafts at the September Planning Commission meeting.

Make the following adjustments to the Agricultural Zone for the purpose of accommodating farm sales and associated sales directly to the consumer. New or deleted text is in **BOLD** print.

"A" - AGRICULTURAL ZONE

Section 6.01 - PERMITTED USES

No building or part thereof shall be hereafter used, erected, or altered, or land used, in whole or in part, in the A-Agricultural Zone except for:

- A. Those uses permitted in the R-2 Residential Zone under the terms provided for such uses, except as altered in this Chapter.
- B. Farms for both general and specialized farming, together with farm dwellings and buildings, and other installations usual to such farms, including roadside stands, provided that such stands sell products grown on the premises ~~and are situated so as to provide adequate off-highway parking for customers.~~
- C. Greenhouses, nurseries, orchards, groves and vineyards, apiaries, farms for breeding of domestic animals, and sanctuaries for wild birds and animals provided the sanctuaries shall be approved by the Michigan Department of Natural Resources.
- D. Agricultural warehouses and storage plants, milk processing plants, primary processing plants for non-animal farm products, and such other enterprises connected with farm production as shall be approved by the Planning Commission.
- E. Home occupations.
- F. Forest preserves and farm woodlots.
- G. Public and privately-owned parks, playgrounds and golf courses with customary service buildings and structures incident thereto.
- H. Public-owned buildings excluding sewage treatment plants, solid waste disposal plants, warehouses, garages and shops or storage yards.

- I. Additional dwellings on any farm for the use of farm or domestic employees of the owner or his lessees, provided there is only one (1) such tenant house in addition to the main dwelling for each ten (10) acres of farm land, and provided that each such tenant house is surrounded by sufficient land to provide a future separate lot of one and one-half (1 ½) acres and a minimum width at the building line of two hundred (200) feet.
- J. Migrant workers' facilities approved in accordance with state law.
- K. Any agricultural, horticultural, or husbandry use unless otherwise specifically prohibited by this Ordinance.
- L. Country arts or craft type shops **and farm markets** of a similar nature where the business is conducted **on land owned and farmed by the owner within structures existing prior to May 29, 1979. No building or structure used for this purpose shall exceed the footprint of the principal farm dwelling on the property.**
- M. The following uses may be permitted within the A-Zone upon approval as a special exception by the Planning Commission pursuant to Section 19.07: chicken hatcheries, poultry farms, processing plants for dressing of poultry and domestic animals, farms for breeding of poultry, breeding and boarding kennels, and extraction of mineral resources less than two (2) acres in surface area.
- N. Septage Waste Storage – Only a closed septage waste storage tank regulated under Public Act 381 of 2004, as amended may be permitted upon approval of a special exception by the Planning Commission pursuant to Section 19.07 of this Ordinance.

Add the following definitions to Section 1.03 of the Zoning Ordinance:

Farm: The land, plants, animals, buildings, structures, including ponds used for agricultural or agricultural activities, machinery, equipment, and other subordinated facilities used in the commercial production of farm products.

Farm Market: A place or an area where transactions between a farm market operator and customers take place offering for sale of fresh agricultural products grown on-site and related products.

An element that can detract from the charm of a farm market is the number and size of signs used to attract the motoring public to the market. The uses and markets adjacent to US-31 have used a reasonable number of market signs to attract customers. The same is also true for the markets adjacent to Elk Lake Road. The Zoning Ordinance provisions regulating Farm Market signs are silent on the number of signs that can be erected on the property. Reasonable judgment has prevailed in the past on this subject, but I desired to have this discussion with you in an effort to avoid a problem in the future. Following are the existing zoning provisions regulating Farm Market signs.

Section 3.02 - SEASONAL OR TEMPORARY SIGNS (without a Permit required) The following signs are permitted in any zone and may be erected and maintained, as provided for herein, without a permit being required provided they are not located in the public right of way and do not obstruct the vision of the motoring public.

- A. Garage Sale, Yard Sale or Private Sale Signs - All signs identifying such sales not to exceed two (2) square feet are permitted as a part of the Yard Sale Ordinance provisions.

B. Farm Market Signs - All signs identifying such markets not to exceed sixteen (16) square feet each sign, are permitted seasonally May through November in agricultural zones.

C. Political Signs - All such signs not to exceed sixteen (16) square feet may be displayed during any political campaign, but the same are to be removed as soon after the election as possible.

NEW ZONING REGULATIONS
Elk Rapids Township Zoning Ordinance Amendment ____
SOLAR ENERGY FARMS
Adopted _____

1. Add the following definition under Section 1.03 Definitions:

Solar Energy Farms: A utility-scale commercial facility that converts sunlight into electricity, whether by photovoltaic, concentrating solar thermal devices or any other various experimental solar technologies for the primary purpose of wholesale or retail sales of generated electricity off-site. Solar Energy Farms do not include individual residential scale solar panels or technologies installed at individual residential or commercial locations (e.g. roof or ground mounted solar panels) that are used exclusively for private purposes and not utilized for any commercial resale of any energy, except for the sale of surplus electrical energy back to the electric grid. Individual residential scale solar panels or technologies are permitted as an "Accessory Use" defined under Section 1.03.

2. The use "Solar Energy Farms" shall be added to the Agricultural Zone as follows:

P. Solar Energy Farms are permitted as a special land use. Planning Commission approval for the issuance of a special use permit (special exception) for a Solar Energy Farm establishment is only permitted when specified procedures and requirements, as outlined in this Section and Chapter 19, Section 19.07 are complied with, including the following.

1. INTENT AND PURPOSE: To allow and promote the use of solar energy within the Township as a clean alternative energy source and to provide associated placement, land development, installation and construction regulations for solar energy farm facilities subject to reasonable conditions that will protect the public health, safety and welfare. These regulations establish the minimum requirements for solar energy farm facilities, while promoting a renewable energy source in a safe, effective and efficient manner.

2. STANDARDS:

a. Minimum Lot Size: There is no minimum lot size.

b. Height Restrictions: All photovoltaic solar panels and support structures located in a solar energy farm shall be restricted to a maximum height of sixteen (16) feet. This includes when the panel(s) is at maximum tilt position.

c. Setbacks: All photovoltaic solar panels and support structures associated with such facilities (excluding perimeter fencing) shall be set back a minimum of fifty (50) feet from all property lines. If the right-of-way exists as an easement, the fifty (50) foot setback shall

be measured from the edge of the easement. Solar panels shall be kept at least two hundred (200) feet from an existing residential dwelling, measured to the nearest point on the residential structure. Any additional setback requirements in this Ordinance that exceed this requirement shall be adhered to, including but not limited to setbacks from streams, lakes, and wetlands.

- d. Safety/Access: A security fence (height and material to be proposed and reviewed/approved through the special use permit approval process) shall be placed around the perimeter of the solar energy farm and electrical equipment. Knox boxes and keys shall be provided at locked entrances for security personnel access.
- e. Glare: Solar energy farm facilities shall be located or placed so that concentrated solar glare shall not be directed toward or onto nearby properties or right-of-ways at any time of the day.
- f. Landscaping: The special use permit application for a solar energy farm shall include a proposed landscape plan prepared by a licensed landscape architect. This plan will be reviewed through the special use permit approval process to assure that the proposed facility is appropriately landscaped in relation to adjacent land uses and road right-of-ways. A landscape plan shall meet following standards:
 1. Plans: A plan view illustrating the landscape plan for the entire project and a rendered view illustrating the view from public right-of-ways.
 2. Buffer: A twenty five (25) foot wide landscape buffer shall consist of two (2) rows of staggered evergreen trees that at planting shall be minimum of four (4) feet in height. If a solar energy farm is adjacent to a residential dwelling or district, then the minimum height shall be six (6) feet at the time of planting. The evergreen trees shall be spaced no more than fifteen (15) feet apart on center, measured from the central trunk of one tree to the central trunk of the next tree. The buffer shall also consist of native grasses, wildflowers, or plants which will provide wildlife and pollinator habitat, soil erosion protection, and/or aid in strengthening the soil structure. The buffer shall be required under the following conditions:
 - i. Along the property line adjacent to all residential zoning districts
 - ii. If solar panels are located within two hundred (200) feet of a public road right-of-way.
 - iii. Along the property line for the portion of the project within a two hundred (200) foot radius of a residential dwelling in a nonresidential zoning district.
 3. Credit for Existing Conditions: Existing topographical features and existing wooded areas may be accepted in lieu of or in combination with the above by approval of the Planning Commission.
 4. Planting Timeline: The required trees shall be planted between April 1st and September 15th. If construction of the solar energy farm begins after August 15th, the required plantings shall be installed by May 1st the following calendar year.
 5. Financial Guarantee: A bond, letter of credit, or cash surety shall be provided in the amount equal to one and one-half (1.5) times the cost of the required plantings that the Township shall hold until the next planting season.
 6. Maintenance: The required plantings shall be continuously maintained in a healthy condition. Dead evergreen foliage shall be replaced.

- g. Local, State, and Federal Permits: Solar energy farms shall be required to obtain all necessary permits and licensing from Elk Rapids Township, Antrim County, State of Michigan, and U.S. Government as applicable prior to construction and shall maintain any necessary approvals as required by the respective jurisdictions or agencies.
- h. Electrical Interconnections: All electrical interconnections or distribution lines shall comply with all applicable codes and standard commercial large-scale utility requirements. Use of above ground transmission lines shall be prohibited within the site.

3. ADDITIONAL SPECIAL USE CRITERIA: In addition to the site plan review criteria in Chapter 17 and special exception criteria in Section 19.07, the applicant shall address the following topics in the application for a solar energy farm facility:

- a. Project Description and Rationale: Identify the type, size, rated power output, performance, safety and noise characteristics of the system including the transmission line/grid connection for the project. Identify the project construction time frame, project life, development phases (and potential future expansions) and likely markets for the generated energy.
- b. Visual Impacts: Graphically demonstrate the visual impact of the project using photos or renditions of the project with consideration given to setbacks and proposed landscaping.
- c. Environmental Analysis: Identify impacts on surface and ground water quality and any impacts to established natural or constructed drainage features in the area.
- d. Waste: Identify any solid or hazardous waste generated by the project.
- e. Lighting: Provide photometric plans showing all lighting within the facility. No light may adversely affect adjacent parcels. All lighting must be shielded from adjoining parcels. For example, lighting fixtures should be of the shoebox variety directing light downward not outward, including wall and pole mounted fixtures. Light poles are restricted to a maximum height of eighteen (18) feet.
- f. Transportation Plan: Provide a proposed access plan during construction and operational phases. Show proposed project service road ingress and egress locations onto adjacent roadways and the layout of facility service road system. Due to infrequent access following construction, it is not required to pave or curb solar energy farm access drives. It shall be required to pave and curb any driveways and parking lots used for occupied offices that are located on site.
- g. Public Safety: Identify emergency and normal shutdown procedures. Identify potential hazards to adjacent properties, public right-of-ways and to the general public that may be created.
- h. Sound Limitations: Identify noise levels at the property lines of the project when completed and operational.
- i. Telecommunications Interference: Identify any electromagnetic fields and communications interference that may be generated.
- j Life of the Project and Final Reclamation: Describe the decommissioning and final reclamation plan after the anticipated useful life or abandonment/termination of the project. This includes supplying evidence of an agreement with the underlying property owner that ensures proper removal of all equipment and restoration of the site within six (6) months of decommissioning or abandonment of the project. To ensure proper removal

of the project upon abandonment/termination, a bond, letter of credit or cash surety shall be:

1. In an amount approved by the Planning Commission to be no less than the estimated cost of removal and may include a provision for inflationary cost adjustments;
2. Based on an estimate prepared by the engineer for the applicant, subject to approval of the Township Board;
3. Provided to the Township prior to the issuance of a zoning permit;
4. Used in the event the owner of the project or the underlying property owner fails to remove or repair any defective, abandoned or terminated project. The Township, in addition to any other remedy under this Ordinance, may pursue legal action to abate the violation by seeking to remove the project and recover any and all costs, including attorney fees

NEW ZONING REGULATIONS

Elk Rapids Township Zoning Ordinance Amendment ____

Wind Powered Generators

Adopted _____

1. Add the following definition under Section 1.03 Definitions:

Wind Powered Generators: Any mechanism or device designed for the purpose of converting wind energy into electrical or mechanical power.

2. Add to General Provisions Section of the Zoning Ordinance.

Section 2.22. Wind Powered Generators. To be treated as an accessory structure, wind powered generators shall meet the standards of this section.

1. Wind Powered Generators shall be sized and intended only to supplement the electricity need of the property on which they are located.
2. Such structures shall only be located in the rear yard, and must comply with the rear and side yard setback requirements.
3. The diameter of the generator blades shall not exceed eight (8) feet.
4. A free standing Wind Powered Generator shall comply with the maximum height permitted for the zoning district. A Wind Powered Generator attached to the primary use may not be taller than the roof which it is attached or thirty-five (35) which ever is less.
5. A Wind Powered Generator shall be so located on the premises that a distance at least equal to the height of the generator blades at their highest point is provided to the nearest property line.
6. The installation of a Wind Powered Generator shall meet all applicable structural and electrical codes.