



## Zoning Text Amendment Hinckley Township

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<b>Meeting:</b>	March 6, 2019
<b>Applicant:</b>	Hinckley Township Zoning Commission (ZC)
<b>Hearing:</b>	March 7, 2019 (ZC)
<b>Amendments:</b>	Edit two and add five definitions Permit Alternative Energy Facilities (AEF) as accessory structures in the R-1 & R-2 Districts Permit AEFs as accessory uses in the R-1 District Add new Chapter 18 Alternative Energy Facilities
<b>Reviewer:</b>	Rob Henwood
<b>Recommendation:</b>	<b>APPROVAL WITH MODIFICATIONS</b>

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**Proposal:** In a letter dated February 8, 2019 Christopher Kalina, Chair of the ZC, requested a review of several changes to the Definition section and to proposed additions and references to “Alternative Energy Facilities” in the Hinckley Township Zoning Resolution.

The complete text amendment proposal includes the following:

- A. Edit the definitions for “Accessory Building” and “Structure.”
- B. Add the following new definitions to Article II Definitions:
  - a. Alternative Energy Facility
  - b. Outdoor Wood-Fired and Hydronic Burner
  - c. Solar Array
  - d. Solar Panel
  - e. Wind Energy Facility
- C. Add § 418 Alternative Energy Facilities: add reference to Chapter 18.
- D. Add § 6R1.2(D)(6) Alternative Energy Facilities to permitted accessory structures in the R-1 District.
- E. Add § 6R1.2(E)(5 and 6) Alternative Energy Facilities to permitted accessory uses in the R-1 District.
- F. Add § 6R2.2(D)(11 and 12) Alternative Energy Facilities to permitted accessory structures in the R-2 District.

New text is underlined, text to be deleted is shown as ~~strikethrough~~. Staff comments are shown as *bold and italics*.

### SECTION 3.2 DEFINITIONS

#### **Accessory Building:**

A subordinate building customarily incidental to and located upon the same lot occupied by the principal building and use. *Consider adding language indicating that accessory buildings are detached from the principal building.*

#### **Alternative Energy Facility:**

A Solar Array or Wind Energy Facility intended to provide electrical power primarily for consumption on-site or an Outdoor Wood-Fired or Hydronic Burner.

**Outdoor Wood-Fired and Hydronic Burner:**

Any equipment, device, appliance, or apparatus, or any part thereof, which is installed, affixed, erected, or situated outdoors for the purpose of combustion of fuel to produce heat or energy used as component of a heating system providing heat for any interior space or water source. *Add the word “a” between the words “component” and “of.”*

**Solar Array:**

Any collection of Solar Panels, connectors, battery banks, controllers, wiring, meters, and switching devices intended to work in combination to convert solar energy to electrical power.

**Solar Panel:**

Any device used for collecting solar energy and converting it to electrical power.

**Structure:**

Anything constructed or erected, that will require the issuance of a County building permit. Anything constructed or erected with a fixed location on the ground, attached to something having a fixed location on the ground, or resting upon the ground including but not limited to signs, buildings, sheds, fences, swimming pools, ponds and lakes.

**Wind Energy Facility:**

Any combination of equipment, machinery, and structures used to convert kinetic wind energy into electrical power and meeting the definition of “small wind farm” as set forth in ORC Section 519.213. The height of a wind energy facility shall be measured from the base of the tower or facility to the tip of the blade or airfoil at its highest point. *Replace the word “is” with “its” in the second sentence.*

**SECTION 4.18 ALTERNATIVE ENGERGY FACILITIES** General Regulations

Alternative Energy Facilities shall comply with the requirements of Chapter 18 Alternative Energy Facilities.

**6R1.2 PERMITTED USES** R-1 Single-Family Residential

**D. Accessory Buildings and Structures:**

4. Private stable (in accordance with ORC definition); ~~and~~
5. Accessory Buildings; and
6. Wood-fired boilers, hydronic heaters, wood furnaces, or water stoves pursuant to Chapter 18.

**E. Accessory Uses**

5. Roof mounted solar arrays pursuant to Chapter 18.
6. Wood-fired boilers, hydronic heaters, wood furnaces, or water stoves pursuant to Chapter 18.

**6R2.2 PERMITTED USES** R-2 Single-Family Residential

**D. Accessory Buildings and Structures:**

11. Roof mounted solar arrays pursuant to Chapter 18.
12. Wood-fired boilers, hydronic heaters, wood furnaces, or water stoves pursuant to Chapter 18.

**Chapter 18: Alternative Energy Facilities**

**SECTIONS**

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|-------------|--|-------------|--|
| <u>18.1</u> | <u>Purpose and Intent.</u>                                 | <u>18.6</u> | <u>Roof Mounted Solar Arrays in Non-Residential Districts.</u> |
| <u>18.2</u> | <u>Compliance And Permit Required.</u>                     | <u>18.7</u> | <u>Free-Standing or Ground Mounted Solar Arrays.</u>           |
| <u>18.3</u> | <u>Use To Be Accessory.</u>                                | <u>18.8</u> | <u>Roof Mounted Wind Energy Facilities.</u>                    |
| <u>18.4</u> | <u>Outdoor Wood-Fired and Hydronic Burners</u>             | <u>18.9</u> | <u>Free-Standing or Ground Mounted Wind Energy Facilities.</u> |
| <u>18.5</u> | <u>Roof Mounted Solar Arrays in Residential Districts.</u> |             |  |

**SECTION 18.1 PURPOSE AND INTENT**

The purpose of this chapter is to provide for the construction and operation of Alternative Energy Facilities as accessory uses in various Zoning Districts, to provide standards for the placement, design, and operation of such facilities in order to protect the public health, safety, and general welfare, and to minimize the adverse impacts of Alternative Energy Facilities on adjacent properties and on the aesthetic quality of the Township.

**SECTION 18.2 COMPLIANCE AND PERMIT REQUIRED**

Alternative Energy Facilities shall be designed, erected, installed, operated, and/or maintained only in accordance with the provisions set forth in this Chapter. A Zoning Certificate issued by the Township Zoning Inspector shall be required prior to the erection, installation, connection, or operation of any Alternative Energy Facility. Where Alternative Energy Facilities are conditionally permitted, such facilities shall also obtain a Conditional Zoning Certificate prior to installation or operation. Alternative Energy Facilities shall be operated at all times in compliance with all applicable Federal, State, and County regulations.

**SECTION 18.3 USES TO BE ACCESSORY**

Alternative Energy Facilities shall only be permitted as an accessory use to a permitted principal use or building located on the same lot or parcel. Where not designed as an integral part of the principal building, such facilities shall be considered accessory structures. Such facilities shall be designed, installed, or constructed to provide electrical power and/or heat to be primarily consumed by the principal use or building to which they are accessory. Cooperative facilities and/or distribution of power to other properties are prohibited.

**SECTION 18.4 OUTDOOR WOOD-FIRED AND HYDRONIC BURNERS**

Wood-fired boilers, hydronic heaters, wood furnaces, or water stoves which are used to heat a dwelling, other building, or water supply but are located outside of the dwelling shall comply with all of the following criteria and standards:

- A. Shall require a Zoning Certificate as an accessory use and structure.
- B. Shall be permitted only in R1 Single-Family Residential Districts and R2 Single-Family Residential Districts, however such facilities shall not be permitted within Conservation Developments.
- C. Shall only be allowed on lots of three (3) acres or larger.

- D. Shall be placed only in rear yards behind the principal dwelling and a minimum of one hundred (100) feet from any property line.
- E. Shall have a chimney that terminates a minimum of twenty (20) feet above grade.
- F. Shall be installed and operated at all times in compliance with both the manufacturer's recommendations and the EPA Phase 2 emission requirements. Failure to install or operate the facility in compliance with said standards shall be grounds for revocation of the Zoning Certificate for such facility.

**SECTION 18.5 ROOF MOUNTED SOLAR ARRAYS IN RESIDENTIAL DISTRICTS**

Roof mounted Solar Arrays in R-1 and R-2 Residential Districts and in Conservation Developments shall be located, maintained, and operated in conformance with the following criteria and standards:

- A. Roof mounted Solar Arrays shall require a Zoning Certificate as an accessory use, but shall be considered part of the principal building and not an accessory structure.
- B. Solar Panels shall not extend more than twenty-four (24) inches above the plane of the roof of pitched roofs nor more than thirty-six (36) inches above the roofline of a flat roof.
- C. Solar Panels shall not extend above the peak or ridgeline of a pitched roof or the parapet wall of a flat roof.
- D. All accessory components shall be located either within the building or behind the front setback line of the principal building.
- E. All accessory components shall comply with the minimum side and rear building setback lines for the dwelling.
- F. Solar Panels shall have appropriate structural strength to withstand wind loads as provided in the Ohio Building Code.
- G. Solar Panels shall be installed to avoid glare or reflection onto adjacent properties and rights-of-way.
- H. Solar Arrays shall not contain advertising visible from off the premises.
- I. Ground mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.
- J. Accessory components shall be screened from view from public rights-of-way and adjacent properties.

**SECTION 18.6 ROOF MOUNTED SOLAR ARRAYS IN NON-RESIDENTIAL DISTRICTS**

Roof mounted Solar Arrays in B-1 and B-2 Business Districts and in I-1 and I-2 Industrial Districts shall be located, maintained, and operated in conformance with the following criteria and standards:

- A. Roof mounted Solar Arrays shall require a Zoning Certificate as an accessory use, but shall be considered part of the principal building and not an accessory structure.
- B. Solar Panels shall not extend more than twenty-four (24) inches above the plane of the roof of pitched roofs nor more than thirty-six (36) inches above the roofline of a flat roof.
- C. Solar Panels shall not extend above the peak or ridgeline of a pitched roof or the parapet wall of a flat roof.
- D. All accessory components shall be located either within the building, behind the front setback line of the principal building, or hidden from view behind the parapet walls of buildings with flat roofs.

- E. All accessory components shall comply with the minimum side and rear building setback lines for the principal building.
- F. Solar Panels shall have appropriate structural strength to withstand wind loads as provided in the Ohio Building Code.
- G. Solar Panels shall be installed to avoid glare or reflection onto adjacent properties and rights-of-way.
- H. Solar Arrays shall not contain advertising visible from off the premises.
- I. Ground mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.
- J. Accessory components shall be screened from view from public rights-of- way and adjacent properties.

**SECTION 18.7 FREE-STANDING OR GROUND MOUNTED SOLAR ARRAYS.**

Free-standing or ground mounted Solar Arrays shall be Conditionally Permitted Accessory Uses and Accessory Structures in all Districts in conformance with the following criteria and standards:

- A. Minimum Lot Area. Free-standing or ground mounted Solar Arrays shall be permitted as a Conditional Accessory Use and Structure only on lots that are two (2.0) acres or larger.
- B. Maximum Height. Free-standing or ground mounted Solar Arrays shall not exceed a maximum height of fifteen (15) feet measured to the highest projection of any Solar Panel in final configuration and orientation.
- C. Minimum Setback. Free-standing or ground mounted Solar Arrays shall be setback from all side and rear property lines in a accordance with the following table:

<b><u>ZONING DISTRICT</u></b>	<b><u>MINIMUM SIDE SETBACK</u></b>	<b><u>MINIMUM REAR SETBACK</u></b>
<u>Residential Districts</u>	<u>30 feet</u>	<u>50 feet</u>
<u>Non-Residential Districts Abutting Non-Residential Districts</u>	<u>30 feet</u>	<u>30 feet</u>
<u>Non-Residential Districts Abutting Residential Districts</u>	<u>50 feet</u>	<u>50 feet</u>

- D. Location. Free-standing or ground mounted Solar Arrays shall be located behind the front setback line of the principal building to which such facility is accessory.
- E. Maximum Ground Coverage. Free-standing or ground mounted Solar Arrays in R1 Single-Family Residential Districts shall comply with the maximum accessory structure ground coverage provisions of Section 6R1.6. Free-standing or ground mounted Solar Arrays in R2 Single-Family Residential Districts shall comply with the maximum accessory structure ground coverage provisions of Section 6R2.6.
- F. Structural Support and Wind Load. Free-standing or ground mounted Solar Arrays shall have appropriate structural support and shall be designed to withstand wind loads in compliance with the Ohio Building Code.
- G. Accessory Components. All accessory components shall be located either within the principal building or behind the front setback of the principal building and shall comply

with the side and rear building setback lines of the District. Ground mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access. Accessory components shall be screened from view from public rights-of-way and adjacent properties.

- H. Wiring. All electrical connections between free-standing or ground mounted Solar Arrays and the principal building shall be located underground.

### **SECTION 18.8 ROOF MOUNTED WIND ENERGY FACILITIES**

Roof mounted wind energy facilities may be located on buildings with flat roofs located in the B-1 and B-2 Business Districts and the I-1, and I-2 Industrial Districts with a Zoning Certificate and in conformance with the following criteria and standards:

- A. Structural Design. Roof mounted wind energy facilities shall have appropriate structural support.
- B. Accessory Components. All accessory components shall be located either within the principal building or behind the front setback line of the principal building and within the side and rear building setback lines. Ground mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access. Accessory components shall be screened from view from public rights-of-way and any adjacent residential properties.
- C. Maximum Sound Level. The maximum sound produced by a Wind Energy Facility during operation shall not exceed 60 dbA measured at the nearest property line. *Enforcement of sound level regulations may require the Township to undertake the following:*
- Purchase or lease of sound metering equipment.*
  - Provide training for current Township personnel on the appropriate use of sound metering equipment or hiring of an outside expert as needed.*
- D. Brakes. All Wind Energy Facilities shall be equipped with an automatic over- speed control system, which may be either an electronic or mechanical system, for automatically controlling blade rotation speed so that the design limits of the system are not exceeded.
- E. Appearance. Lighting of Wind Energy Facilities shall be prohibited. Towers, turbines and blades shall be white, black, or gray. No signage or advertising readable from off the premises shall be permitted on any Wind Energy Facility.
- F. Maintenance Required. Wind Energy Facilities shall be properly maintained at all times in compliance with all manufacturers specifications. The immediate grounds around the base of the facility shall be maintained in good condition at all times.
- G. Engineering Report Required. Each application for a Wind Energy Facility shall be accompanied by a report from a licensed engineer documenting that the proposed system will meet all of the standards set forth herein, that it is designed to handle anticipated wind loads, that the roof support system has been properly designed, and that it has appropriate over-speed controls.
- H. Maximum Height. Roof mounted Wind Energy Facilities shall not exceed the maximum building height of the Use District in which they are located nor more than twenty (20) feet above the roof level of the building on which the facility is mounted, whichever is less.

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**SECTION 18.9 FREE-STANDING OR GROUND MOUNTED WIND ENERGY FACILITIES**

Free-standing or ground mounted Wind Energy Facilities shall be Permitted Accessory Uses and Accessory Structures in all Districts provided such facilities obtain a Zoning Certificate and comply with all of the following criteria and standards:

- A. Minimum Lot Area. Free-standing or ground mounted Wind Energy Facilities shall be permitted as a Conditional Accessory Use and Structure only on lots that are three (3.0) acres or larger.
- B. Minimum Setback. Free-standing or ground mounted Wind Energy Facilities shall be setback from property lines in compliance with the minimum side and rear yard setback requirements for accessory structures of the zoning district in which they are located or with the safety requirement of Subsection C Clear Fall Zone, whichever is the greater.
- C. Clear Fall Zone. In order to provide for a safe clear fall zone in the event of structural failure, the minimum setback from any property line, electrical transmission line, public right-of-way or easement, or gas well shall be 1.1 times the height of the Wind Energy Facility measured to its highest point.
- D. Maximum Height and Minimum Ground Clearance. Free-standing or ground mounted Wind Energy Facilities shall not exceed the maximum building height of the Use District in which they are located. No moving part of any Wind Energy Facility shall extend to within fifteen (15) feet of the ground.
- E. Maximum Sound Level. The maximum sound produced by a Wind Energy Facility during operation shall not exceed 60 dbA measured at the nearest property line. *As stated previously, enforcement of sound level regulations may require the Township to undertake certain actions pertaining to the use and operation of sound metering equipment.*
- F. Brakes. All Wind Energy Facilities shall be equipped with an automatic over-speed control system, which may be either an electronic or mechanical system, for automatically controlling blade rotation speed so that the design limits of the system are not exceeded.
- G. Wiring. All electrical connections between free-standing or ground mounted Wind Energy Facilities and the principal building shall be located underground. Ground mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.
- H. Appearance. Lighting of Wind Energy Facilities shall be prohibited. Towers, turbines and blades shall be white, black, or gray. Only monopole towers shall be permitted. No signage or advertising shall be permitted on any Wind Energy Facility that is readable from off the premises. Each such facility shall have a visible mounted emergency placard eighteen (18) inches by eighteen (18) inches containing the name and emergency contact information of the owner and individual or firm responsible for service and the date of installation of the facility.
- I. Maintenance Required. Wind Energy Facilities shall be properly maintained at all times in compliance with all manufacturers specifications. The immediate grounds around the base of the facility shall be maintained in good condition at all times.
- J. Engineering Report Required. Each-application for a Wind Energy Facility shall be accompanied by a report from a licensed engineer documenting that the proposed system will meet all of the standards set forth herein, that it is designed to handle anticipated wind loads, that the foundation has been properly designed, that it will comply with the clear fall zone requirement, and that it has appropriate over-speed controls.

- K. Anti-Climb Devices Required. Wind Energy Facilities shall be fenced or fitted with anti-climb devices.
- L. Removal. Any Wind Energy Facility that is not operated or ceases to function for a period of six (6) consecutive months or longer shall be deemed abandoned and shall be removed. *This is inconsistent with § 8.3(D) Discontinuance of Use which states “discontinuance of the non-conforming use of a building, part of a building, lot or part of a lot for a continuous period of two (2) years or longer shall constitute voluntary abandonment.” It is not clear why abandoning a Wind Energy Facility would be considered differently than abandoning other uses. The proposed six month period seems inappropriately short.*

**Recommendation:** Planning Services staff recommends the Planning Commission **APPROVE WITH MODIFICATIONS** the proposed amendments to the Hinckley Township Zoning Resolution.